

A C C S

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GIVING
ASSISTANCE
AT
BARNES

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VOL. LXXXIII No. 2132

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LONDON, MARCH 26, 1960

PRICE ONE SHILLING

Cunard Finds Wings

SEVERAL points of exceptional interest surround the bare announcement that Cunard has reached agreement with Eagle Airways for it to secure something like a 60 per cent interest in the latter group. Eagle is the last of the major U.K. independent air operators to find a maritime attachment; Cunard, contrariwise, will for the first time have a direct interest in air transport—before the war it was an Imperial Airways agent. The real significance of this move, however, seems three-fold. Cunard is evidently convinced that out of the Civil Aviation (Licensing) Bill now going through Parliament it is going to secure scheduled transatlantic routes by which to develop the existing Eagle business between this country and New York, Bermuda, Nassau, Miami and elsewhere—routes on which, for the first time in an air-shipping deal of this character the two parties will be in competition. It also seems likely that competition in the air across the Atlantic under the British flag is going to be between two worthy contenders, B.O.A.C. and Cunard. Significantly, B.O.A.C. says it is already exploring ways and means in which the two interests "might collaborate to further British interests across the Atlantic." One of the immediate problems is re-equipment of the Eagle fleet, the long-distance section of which consists only of three Douglas DC6Cs—it is evaluating a Britannia—but Sir John Brocklebank, chairman of Cunard, hinted that chartering might take care of this situation. For Mr. Harold Bamberg, who has built Eagle Airways to what it is in the short space of ten years, this is no grounding; he will continue in control.

Emphasis on Parking

GOOD service has been done the cause of freeing traffic flow in town streets by the car parking exhibition organised by the British Road Federation and held at the Institution of Civil Engineers in London, March 18-26. It showed what can and must be provided in the way of off-street facilities. If the intelligent foreigner has gone much farther than we, it was heartening to see from photographs and drawings of some 140 or more garages—multi-storey, roof or underground—and from the 35 models that given official encouragement Britain can produce any number of schemes satisfactory from the architectural, engineering and traffic viewpoints. Some photographs from the exhibition appear on page 13. Lord Derwent, chairman of the British Road Federation, in welcoming Mr. Ernest Marples, Minister of Transport, at the official opening on March 17, said that lamentably we had built few off-street parking facilities during the postwar period; the exhibition showed we had the skill to do it and he was sure that the most profitable schemes would be those cheapest to the customer. In the Minister's experiments in limiting street parking it was important to indicate to drivers where parking was permitted. When opening the exhibition Mr. Marples asked who was going to pay to use off-street garages when they could park free in the street? The experience of garages unfilled at peak parking times was discouraging. Whereas aircraft, ships and trains paid for their terminals, lorries and cars rarely did so. The correct economic rental must be paid by their owners.

The Electrification Conference

MORE than 100 engineers from overseas railway administrations have already accepted invitations to the British Railways Electrification Conference which, as announced, will take place in London during the first week in October. No fewer than 41 papers on technical aspects of the 25,000-volt a.c. system of railway electrification will be presented at the conference, at which delegates will hear about developments taking place in this form of traction as applied to British Railways. The conference will be supported by an exhibition of electric locomotives and traction equipment at Battersea from October 3 to 9. The opening paper of the conference will be given by Mr. S. B. Warder, chief electrical engineer,

British Railways Central Staff, British Transport Commission, under the title "Electrification in the Modernisation of British Railways—the choice of the 50-cycle System." This will be followed during the week by 10 papers read by the authors, while the remaining papers, which will be printed and distributed, will be discussed but not read at the conference. Papers are being prepared by technical officers of the B.T.C. and the railway regions, as well as by the directors, chief technical managers, engineers, or designers, of many well-known manufacturers in the British industry. The

installations in Italy and Germany and was going on to France, was the guest of U.K.R.A.S. in Britain, and saw recent installations on the Eastern, London Midland and Southern Regions, as well as what manufacturers are doing. At a dinner in his honour Brigadier A. E. M. Walter, head of the International Inland Transport Branch of the Ministry of Transport welcomed him to Britain, where railways were invented, and assured him of the sincere desire of U.K.R.A.S. to be helpful—"because we believe that in this way nations can advance together."

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subjects will range over locomotives and multiple-unit trains, power supplies and distribution, civil engineering, interference problems, signalling and telecommunications, instrumentation and measurement, switchgear, and the catenary overhead system. The summing up will be by Mr. R. C. Bond, technical adviser to the Commission. The papers will be printed and distributed beforehand to all delegates attending the conference. Later they will be printed in full in the bound proceedings, which will also include the full discussion on each paper. Preliminary orders for the proceedings may now be placed with the Secretary of the British Railways' Electrification Conference, B.T.C., 222 Marylebone Road, London, N.W.1. Details of the papers to be read and discussed appear on page 7.

Railway Advisory Service

DURING 1959 the United Kingdom Railway Advisory Service was established to enable railways in Asia and the Far East to draw upon the wide and varied knowledge and experience available in this country as a result of experience over a century with railway problems, the modernisation programme now in progress on British Railways and the widespread collaboration of our railways, our engineering consultants and our manufacturers with railways throughout the world. Any railway administration with problems, large or small, in connection with research, safety, electronics, automation, motive power, power supplies, maintenance, signalling, permanent way, rolling stock, accounting, statistical procedure, or any other matters in the technical, economic or commercial fields is invited to communicate with U.K.R.A.S. at the International Inland Transport Branch of the Ministry of Transport. There the data given about the problem will be analysed and a solution suggested or a visit by technical officers suggested to make an investigation on the spot. This procedure is working well and facilities have been extended elsewhere than E.C.A.F.E. countries. Last week Señor Falcone, chief engineer (signalling), Chilean State Railways, who has been touring signal

Tempting Sea Travellers

THE successful launch at Belfast last week of s.s. *Canberra* for the Peninsular and Oriental Steam Navigation Company, after its naming at the Harland and Wolff yard by Dame Pattie Menzies, marked a further stage in the progressive programme of its owner and its associate, the Orient Line, to provide outstandingly attractive passenger service in vessels which are operationally economical. A general review of some of the modern features of the ship appeared in our issue of November 28, 1959, and we had stressed in the preceding issue the courage which lay behind the decisions to order her and *Oriana* at a time when many were foretelling the doom of the large liner in the face of the rapid growth of air transport. It is not necessary to go all the way with Sir William Currie, chairman and managing director of P. and O., in his view that passenger ships offered "convalescent homes for weary air travellers" to appreciate that the prospect of voyaging between Britain and Australia in three weeks, or across the Pacific in comfort, but several knots faster than at present, is likely to tempt many passengers with no great business urgency. The establishment of the Orient and Pacific Lines linking Australasia and the Far East with North America was itself an enterprising move which has met with more success than the pessimists predicted. The advent of such magnificent vessels—the largest passenger liners built in the United Kingdom since the war—should provide a most valuable incentive and an irresistible attraction.

More Lost Differentials

IN the correspondence columns of the *London Evening News* last week there appeared a letter from Mr. L. W. Orchard, clerk to the British Transport Officers' Guild, who called attention to the relative depression of salaries of the officers of British Railways. This had happened through the application of reduced amounts of awards towards the higher salaries and the degrading of posts when vacancies occur—"a policy suggested by the Minister of Transport

to the Commission in 1949." It would require a considerable increase in their salaries and improvement of their salary ranges—which went up to £15,000 in company days and now stop short at £8,500—to remove the depression, discontent and frustration which appears to be so rife in the railway service today. The Guild suggests that "it is vital to the interests of the public that there should be a modernisation scheme for the improvement of the remuneration of officers and senior staff to produce high standards of efficiency and service, coupled with energy, imagination and enterprise."

Labour at Smaller Ports

MOVES to bring the smaller ports under the National Dock Labour Board scheme are causing alarm in certain quarters—mainly among the operators of coasting and short-sea vessels who have found that by using such ports as Shoreham and Felixstowe they have been able to maintain regular and uninterrupted shipping services. Now these owners did not start to make better use of these ports because they particularly wanted to, but because they found it desirable to transfer their activities from the larger ports in order to give their customers the service they demanded. The amount of cargo handled at such ports has increased over the last few years, but it is still only a very small proportion of the total cargo passing through all of the ports of the United Kingdom. The total labour force employed at these small ports is not large and, indeed, a fair proportion of it is not solely employed in dock work. Furthermore, it is not given to indulging in unofficial strikes. But the Transport and General Workers' Union wants to see them under the N.D.L.B. scheme. Nevertheless, there are no signs that those employed at these ports are being exploited or underpaid—in fact, they appear rather happy with things as they are. One factor influencing the union may well be that it is concerned at this loss of trade from the major ports.

Example of British Compromise

THE National Dock Labour Scheme was described as a typically British institution by Mr. A. J. M. Crichton, managing director of the Peninsular and Oriental Steam Navigation Company, in a luncheon address to the Institute of Transport on Tuesday last. Introduced by the president, Mr. Reginald Grout, as one who had had 18 years' experience in India and 12 in this country and as chairman of the National Association of Port Employers, he was exceptionally fitted to speak on the subject of labour in the docks. Regarded at times as frustrating, depressing and difficult, the port transport industry's function was the handling of goods between sea and other forms of transport with which it had little in common. The average docker was a skilled man but he suffered from the effects of casual labour, resulting from an ever-varying demand for his services. Of the total labour force only 23 per cent was employed on a weekly basis and the remaining 77 per cent was in a pool from which labour was drawn according to fluctuating demand. Casual employment, said Mr. Crichton, was at the base of their problems. To some extent a solution is offered by an example of British compromise in the shape of the National Dock Labour Board, managed jointly by employers and unions and run at the expense of the former. It controls the strength of the register (72,000 today compared with 90,000 in pre-Board days), collects the wages from the employers and distributes them to the men. De-casualisation has been effected by the payment of a minimum wage to all reporting for duty, even though no work is available. Mr. Crichton spoke well of the machinery for solving daily problems, which, he said, was far more efficient than was generally supposed. As employers their efforts were concentrated on the efficient use of manpower. "We are woefully behind in this country in the use of mechanical equipment at the ports," he said. They aimed to reduce the strain on the men—and the ports—and were considering training schemes and pensions.

Southern Region modernisation



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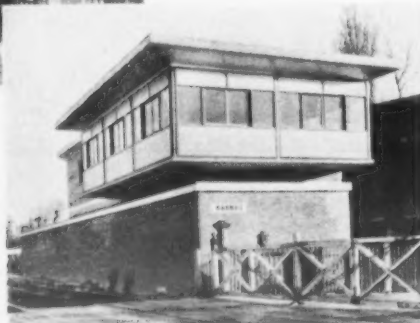
Part of relay room at Barnes

Photos by courtesy of British Railways—Southern Region

Barnes new signal box and level crossing gates

This resignalling covered the supply and installation, over the whole section, of colour light signalling, point machines, and continuous track circuiting and, in the new signal box at Barnes, an O.C.S. control panel, with illuminated diagram, controlling all the signals and point machines for the 45 routes.

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The Editor is prepared to consider contributions offered for publication in MODERN TRANSPORT, but intending contributors should first study the length and style of articles appearing in the paper and satisfy themselves that the topic with which they propose to deal is relevant to editorial requirements.

A Chance to Clear the Air

THE recent introduction of the Civil Aviation (Licensing) Bill intended by the Government to ensure that all air transport operators maintain proper standards of safety and to regularise the licensing system for scheduled and other air services and to give independent operators equal rights with the state corporations received what could reasonably be described as a guarded welcome, although all responsible operators hastened to express approval of the safety provisions and, of course, to stress that these made, in any case, no difference to their present practices. Winding up the debate on the second reading, the Parliamentary Secretary to the Ministry of Aviation, Mr. Geoffrey Rippon, described the debate as a very good one, with views fairly and thoughtfully expressed on both sides, an assessment which we feel was a little more generous than the circumstances warranted. There were, it is true, relatively few examples of political axe-grinding but there still seemed to be a regrettable tendency to hold to long-enduring misconceptions of what was involved and to take a stand upon private enterprise being bound to be right just because it was what it was or to be wrong for just the same reasons. This newspaper has for a long time propounded the view that there was scope for the development of the independent operators provided that they proved themselves fit and proper undertakings to be entrusted with the work and provided also that it did not impair the efficiency of the two corporations which might be largely free from British competition but had more than enough to meet from foreign operators.

Aircraft Orders and Utilisation

THERE remains a good deal requiring clarification as to the extent to which independents may be allowed to impinge upon the existing networks and planned expansion of the corporations. Apart from the substantial deliveries of new and expensive aircraft which have started or are about to start—the de Havilland Comet 4Bs and Vickers Vikings for B.E.A. and the Boeing 707s for B.O.A.C.—there are the longer-term orders for the Airco DH121 in the case of the former and the VC10 for the latter. Their purchase can only be justified economically if the planned high utilisation figures can be attained and these could possibly be impaired if one or other of the undertakings found that it had lost one or more routes in favour of an ambitious independent. It has been argued that this should not be the result at all but that the corporations would, on the contrary, be spurred to the more intensive development of the routes which had been left with them. That might be feasible in some cases but there are many where the existence of parallel operations by foreign airlines and provisions for reciprocity as regards the number of seats offered could prove to be an insuperable

difficulty. If the policy is indeed to be one of allowing independents to cultivate some of the more fertile routes, what then can be done to recompense the corporations for what they have undertaken in the way of equipment commitments? By virtue of the recent statement by the Minister of Aviation they can certainly, it is true, be relieved of some of the heavy burden of costs involved in the introduction of new types of aircraft and it might be that some proportion of the new machines would be diverted to the independent operators with the proviso that maintenance be done by the corporations.

Movement of Air Freight

ONE of the disadvantages under which the independents have laboured has, of course, been the cost of new aircraft, both from the viewpoint of the actual price and from that of the necessary maintenance equipment. It has been argued that short tenure of licences for inclusive tours, uncertainty of troop contracts and lack of opportunity for development have all been strong deterrents. At the annual dinner of the British Independent Air Transport Association last November, the Minister of Aviation suggested that there might be grounds for reducing the number of independents by mergers; the Commons debate was preceded by the announcement that Airwork and Hunting-Clan had agreed in principle to an amalgamation of their air transport affairs. Both are backed to a very large degree by shipping interests as are all the other large independent airlines now that Cunard is acquiring control of Eagle. Such solid support is very essential in the air transport business and it is worth noting that French independents, about which some Government supporters waxed eloquent during the debate, have also been indebted to marine support in their development. Little was said about the scope for air freight services and this may well have been due to the uncertainties which still lie ahead in that field. There has been a very considerable growth in freight traffic and operation of all-freight flights is on the increase, but design of modern aircraft to take substantial freight loads in addition to carrying passengers is likely to lay continued emphasis upon the use of scheduled passenger flights in preference to the all-freight operation. On the other hand, the influx of turbine-engined aircraft has made the sale of second-hand piston-engined machines an extremely difficult matter and there has latterly been a tendency to embark upon quite expensive modifications of such aircraft for freight work. The decisions on fares reached at the I.A.T.A. traffic conferences with differentials favouring propeller aircraft could, however, go some way to diminish such enthusiasm.

Work of The Licensing Board

IT seems clear that the Air Transport Licensing Board is expected to have a great deal to do and, indeed, Mr. Rippon replied to a suggestion that the provision for a minimum of six and a maximum of ten members was excessive by saying that it was envisaged that the Board should be able to sit, as and when necessary, in two divisions. It is difficult to see why the Opposition and, indeed, some sections of the technical Press should be so concerned at any appeals from decisions of the Board being directed to the Minister. The Parliamentary Secretary rightly called attention to the parallel with the Road Traffic Act, 1930, passed, as it happens, under the auspices of a Labour Government, and to the fact that both the Thesiger and the Franks committees in their reviews of the procedure had found no cause to criticise the way in which it worked. The Government decided to present this new Bill rather than to establish the licensing procedure by Order in Council as it could have done under the 1949 Act. In this it was undoubtedly wise, for the progress of the measure through Parliament may, apart from bringing determination of a number of unresolved problems, provide also an opportunity to slay once and for all a few of the mischievous dragons of misapprehension which breathe confusing smoke from both sides of the house and do nothing to improve the lot of a branch of the transport industry which needs all the support forthcoming.

NEWS SUMMARY

THE era of the steam locomotive on commercial railways, begun in 1825 in Darlington, is drawing to a close with the naming at Swindon (see page 6) of the last to be built for British Railways, Evening Star. No. 92220 is a Class 9F 2-10-0 freight engine. At present B.R. has 14,231 steam locomotives, 484 main-line diesel locomotives, 1,405 diesel shunting locomotives and 90 electric locomotives. By 1963 it is expected there will be 2,300 main-line diesel, 2,000 diesel shunters, about 200 electric locomotives and only 7,000 steam engines.

The United Kingdom Railway Advisory Service gave a dinner to Senor Falcone, chief engineer (signalling), Chilean State Railways, on March 17 during his visit to England and the B.R. modernisation works.

London busmen have accepted the pay offer of 10s. a week extra for drivers and conductors,

8s. 6d. for semi-skilled maintenance men and 8s. for unskilled men. This brings the pay of a Central driver to a basic of £10 12s. a week and that of a conductor to £10 8s. They are now reported to be pressing for an investigation on "Guillebaud" lines.

Agreement has now been reached between the Ford Motor Co., Limited, and the Board of Trade upon the new factory at Halewood on Merseyside and work thereon is to go ahead.

Sir Graham Cunningham, K.B.E., has resigned as chairman of the Shipbuilding Advisory Committee and the Minister of Transport is appointing Sir James Dunnett in his stead.

A further meeting of the Railway Shopmen's National Council took place on March 21 in connection with the claims of the employees' side of the council for improved rates of pay and conditions of service for railway workshop staff. No agreement was reached.

COIL SPRING RESEARCH

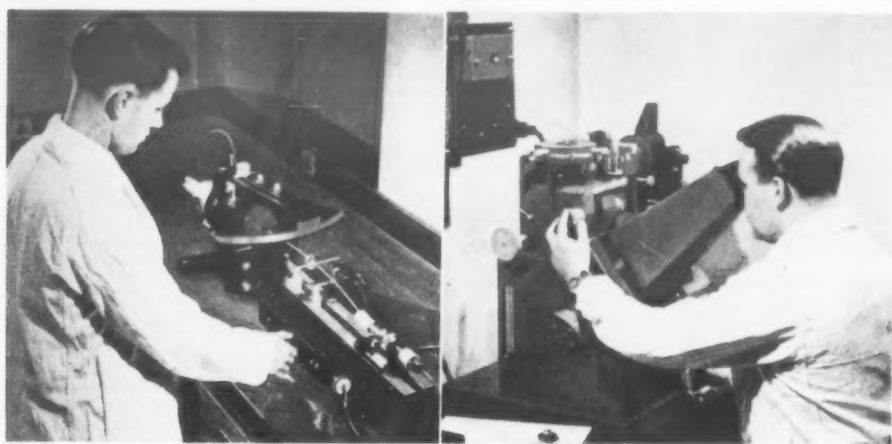
Comprehensive Co-operative Facilities

NEW LABORATORIES OPENED IN SHEFFIELD

NEW laboratories for the Coil Spring Federation Research Organisation, which were formally opened in Sheffield on March 24 by Sir Harry Melville, Secretary of the Department of Scientific and Industrial Research, are said to be among the most comprehensive of their kind in the world. They will enable research to be carried out on springs made from the finest wires to bars of up to 2 in. diameter. In addition to work on springs and torsion bars, research will be possible on materials in wire and strip form and metallurgical investigations will be undertaken on a very wide range of ferrous and non-ferrous alloys.

A major feature of the new buildings is a comprehensive electroplating laboratory, the

ture research has been raised from 500 to 850 deg. C. While ambient temperature changes are not necessarily serious factors, the atmosphere in which a spring has to operate can be most important, as corrosion can accelerate failure. In corrosive atmospheres, such as in a chemical plant, the spring must be protected, either by metallic or non-metallic coatings. In applying metallic coatings, one of the problems is hydrogen embrittlement due to electroplating and the electroplating equipment installed in the new laboratory will permit further research in this field. In the field of non-metallic coatings the C.S.F.R.O. is exploring the application of new resinous and plastic materials to springs through an extra-mural project being carried out at the engineering department of Imperial College, London. Another extra-mural project is research into the metallurgy of copper beryllium as a spring



Rotating-bending fatigue testing of spring wire on a Haigh-Robertson machine and, right, using a Vickers projection microscope to examine the metallurgical structure of a spring steel

equipment in which has been presented to the C.S.F.R.O. by W. Canning & Co., Limited, Birmingham. This facility will enable further work to be done in the important field of hydrogen embrittlement, which has always been a problem, particularly with high-tensile steels.

Co-operative Research

The spring as we know it—which may be a leaf spring, a coil spring or a torsion bar—was first made in Britain about 200 years ago. Springmaking soon became an important craft and manufacturing centres grew up in the Black Country, in Yorkshire, in Rochdale and Redditch. These are still the most important centres, producing millions of springs of all shapes and sizes for the engineering industry generally. Only 30 years ago springs were almost entirely the product of craftsmen, being developed largely on empirical lines. The more exacting needs of the weapons and machines developed during the 1939-45 war, demanding springs capable of standing up to unprecedented conditions, led to the adoption by the industry of co-operative research. Thus the scientist took his place beside the craftsman and the Coil Spring Federation Research Organisation was born. It is still a comparatively small research group but in the last three years, since it was reorganised as an active centre for

material, which is being carried out in the metallurgy department of Sheffield University.

The two-storey laboratory block recently completed in Doncaster Street, Sheffield, contains laboratories for heavy fatigue testing, general mechanical testing, experimental heat treatment and electroplating. In the fatigue-testing laboratory are housed 12½-h.p. machines capable of applying a dynamic load of 9 tons, which are used for fatigue testing heavy coil springs. Up to 18 springs can be tested at one time. Other machines used for fatigue testing springs of the internal combustion engine type are capable of infinitely variable speeds of compression of up to 4,000 per min. A special feature of this laboratory is the sound-proofing and anti-vibration features incorporated in both the suspended ceiling and the floor.

Mechanical Testing

The mechanical testing laboratory houses a variety of conventional machines used for determining the properties of both specimens and springs, covering the range of material diameters 0.004 to 2.0 in. One machine, for example, is capable of developing a maximum torque of 120,000 lb./in. and is used to investigate the effects of hardenability on the static torsional properties of large-diameter spring steel bars. There is a comprehensive range of machines, capable of applying



Multiple fatigue testing of heavy hot-formed spring with a maximum load of 8½ tons on a 12½-h.p. radial machine

spring research, its contribution to fundamental knowledge, as well as applied techniques, is increasing rapidly. Until 1957, all C.S.F.R.O. investigations on spring research were carried out on an extra-mural basis in the universities. Now, most of the research is being done in the C.S.F.R.O. headquarters at Sheffield, but the link with the universities is still maintained and at least two of the projects on the current research programme are being investigated by university departments.

Until fairly recently springs were made only from carbon steel, a material possessing the prime requirement of high-tensile strength. Since the 1914-18 war, alloy steels have become increasingly important as spring materials but carbon steel is still widely used. The spring maker has unique problems, because of the way a spring is loaded or stressed. There are only a very few other applications of metal where the material is stressed in torsion (twisting the metal rather than pulling or bending it) and this is the essential reason for the spring industry to carry out its own research; the work of most other metallurgical research establishments is not directly applicable.

In the 1939-45 war government contracts called for rigid specifications and these were among the first "standards" to be laid down in the British industry. In 1947 the British Standards Institution introduced its first standard on springs. Now, it is the research organisation which very often sets the standards as a result of its investigations. The research programme for the next two or three years contains many important projects but perhaps the most significant is that the ceiling for high tempera-

static loads from a few ounces up to 30 tons. The determination of fatigue characteristics of drawn wires of diameters 0.01 to 0.25 in. is provided for by high-speed rotating-beam fatigue machines, which can complete up to 100 million cycles in as little time as one week.

The study of corrosion and protection of spring materials and the effects of hydrogen embrittlement due to electroplating is being continued in a new laboratory specially fitted out for this purpose. Facilities are available for electroplating copper, zinc, tin, cadmium and nickel, and the experimental heat-treatment laboratory is equipped with fully instrumented electric furnaces. The laboratories contained a number of machine tools and a shot-peening unit which automatically rotates the object under treatment while at the same time traversing it with the shot stream.

The first floor is devoted to light laboratories containing small static testing machines, general scientific instruments and equipment, administrative offices, and a conference room. The materials testing laboratory contains machines for determining macro-hardness, tensile and torsional properties of wires and load-deflection characteristics of small springs. Metallographic facilities are provided in specially fitted rooms for rough sample preparation, fine polishing and etching, microscopical examination and photography. The laboratories were built at a cost of £22,000 and new equipment totalled another £25,000. They are under the control of Mr. R. Haynes, B.Sc., A.Inst.P., A.I.M., director of the Coil Spring Federation Research Organisation.



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LORRY—BUS—COACH

Dunstable—Glasgow Service Upheld

DISREGARDING the report of his inspector, the Minister of Transport has upheld the grant by the Metropolitan Traffic Commissioner to Buckmaster Garages, Limited, of a summer week-end express service between Dunstable and Glasgow and the refusal of a similar service to the Western S.M.T. Co., Limited. The inspector (Mr. S. A. Bailey) considered that the grant to Buckmaster would result in undue abstraction from Western S.M.T. services and that it should be revoked. The Minister says it is only a restricted holiday week-end service and some of the traffic was likely to be new, i.e., passengers who would otherwise not travel at all. The evidence indicated the desirability of a direct coach service between Dunstable and Luton and Glasgow.

Shorter Hours, Longer Waits

CHAIRMAN of Birmingham City Transport Committee, Alderman L. Chaffey has pointed out that if engineers' hours are reduced from 44 to 42 hours a week it may take them longer to get home. He instanced the Lucas works in Great King Street to which 25 special buses are sent at 6 p.m. If the works close at 5.30 these buses will not be available as they are required for office staffs going home.

Heavy Loads at Summer Week-Ends

OPERATORS of special-type vehicles or others carrying loads more than 9 ft. 6 in. wide are being asked by the Ministry of Transport to keep them off the main routes to or from holiday haunts during week-ends from the beginning of June to mid-September. They are asked if possible to terminate such journeys by Friday night, or by Friday mid-day at the Easter, Whitsun and August week-ends.

Taxation of Work-in-Progress

AFTER a protracted hearing the High Court has dismissed a Crown appeal from a decision of Mr. Justice Vaisey in July, 1959, which raised the question whether, in computing the profits of Duple Motor Bodies, Limited, for income tax purposes, the value of work in progress should be calculated by the direct cost method (the cost of materials and labour only) as the company contended; or by the on-cost method (which added a proportion of indirect expenditure to the direct cost) as the Crown contended. Their Lordships held that on the facts of this particular case the direct cost method should be applied. Leave to appeal to the House of Lords was refused, but this does not preclude an approach to the Lords for leave to appeal. The decision is reported in the *Times Law Reports* of March 18.

Collection and Delivery Costs

THE Institute of British Launderers is publishing a technical report on collection and delivery economies. It commences with design of the van. Sections dealing with loading and unloading indicate ways of reducing time thus occupied to a minimum. The potential output to be expected under various conditions is examined for both a

driver only and also for a driver and an assistant. There are chapters on hired transport and van replacement and costs are dealt with. The report, costing £1 ls., is obtainable from the Institute at 16-17 Lancaster Gate, W.2.

Nine-Hour Day for Drivers Foreseen

FATHER figure for ancillary operators in the Midlands, Mr. C. E. Jordan, chief transport officer of T.I. Group Services, Limited, declares that railways will never pay again, because of the inherent advantages of road transport which they



Dennis Heron removal van returning on a Sussex road to Hastings; right, one of two Foden dumpers employed to transport limestone between a nearby quarry and Eastwoods cement works at Lewes

Underground areas were pegged level; now, as a result of the application of the Guillebaud award to Underground men, the latter would be £3 per week ahead, it is claimed. In these circumstances, acceptance by a delegate conference on Monday of the London Transport offer of a 5 per cent wage offer was treated as a secondary issue, or interim settlement. London Transport says it has had no approach from the union for an inquiry of this sort. It is understood that the fairly abortive ban on voluntary overtime and rest-day working, called in support of the wage claim, was called off at the week-end.

Because of "considerable additional commitments for wage increases at this time," London Transport last week rather unexpectedly announced that it could not continue with the proposed incentive bonus scheme propounded for bus workers in January. The scheme was being considered by the union. London Transport now says that, although



Dennis Heron removal van returning on a Sussex road to Hastings; right, one of two Foden dumpers employed to transport limestone between a nearby quarry and Eastwoods cement works at Lewes

it was planned to pay for itself in time, it would involve considerable additional cost to start it off in the early stages.

The Homing Instinct?

CONCENTRATION of its vehicles in Dundee was approved by the deputy Scottish area Licensing Authority for Allison's Transport (Contracts), Limited, last week. In six applications the company had asked for the transfer of as many vehicles from Liverpool to its Dundee headquarters and another six from Glasgow. Mr. Gilbert Taylor, joint managing director, said Dundee was the head office, and all maintenance and invoicing was carried out from there. They were retaining the depots in Glasgow, Liverpool and the Metropolitan area. The change of base would not alter the type or character of the business, but would provide interavailability of vehicles. Glasgow would still be served to the same extent, although the preponderance of traffic was to England. Mr. W. D. Connochie, solicitor, for the applicant, indicated that it was also desired to standardise the normal user to be "general goods, Central and South Scotland, Lancashire, Yorkshire, Midlands, London and Home Counties." Other licences with an existing normal user of "general goods, Great Britain,"

would be so restricted when they came up for renewal. Mr. Alex. Robertson, granting the applications, said that the Transport Tribunal, in an earlier decision involving Allison's, had said it was obvious in the interests of the firm as a commercial undertaking that if possible all its licences should be aggregated as licences granted by and thereafter under the control of the Scottish authority, instead of having them piecemeal about the country.

Historical Objections Disallowed

APPEALS lodged by B. S. Williams, Limited, against the decisions of the South Eastern area Traffic Commissioners, in granting to Southdown Motor Services, Limited, road service licences for 11 express carriage services and three groups of excursions and tours starting from Portsmouth and Southsea formerly licensed to Triumph Coaches, Limited (originally owned by B. S. Williams) have failed. The objector's case turned on the circumstances of the winding-up of Hants and Sussex Motor Services, Limited, in 1954-55 and the sale of Triumph Coaches; and second, the alleged illegal operation of various bus companies (including the applicant) in 1951-53. The objector claimed that the commissioners ought to adjourn the hearing of the applications by Southdown until they could be heard along with the competing applications by the objector; that, having heard them, the commissioners should defer determining them until that later stage; and that, if they did not defer their determination, they should refuse the applications. The commissioners rejected all these claims because there was nothing in them—however well substantiated—which, in the chairman's words, they could "take hold of and act upon." The appellant challenged the commissioners' decision to hear no more evidence on these lines.

The Minister agrees with his inspector that these "historical" lines of argument are remote from the considerations to which the commissioners are, by section 72 of the 1930 Act, to have regard, and that they "do not appear to be matters which could be taken into account in a road service licence decision." Bearing in mind that some at least of the questions involved were the subject of civil proceedings in the courts, the commissioners had proper reasons for deciding that these questions were not for them. Mr. B. S. Williams did not accept the commissioners' invitation to adduce evidence on, for instance, the "heavy burden of various local rural services" or on other positive grounds in support of the claim, referred to in the notice of objection, that he rather than Southdown should be licensed to run the services if Triumph Coaches no longer did so.

Bus and Coach Developments

H. H. Milson, Limited, Coningsby, applies for licences of T. H. Gosling and Son, Mareham-le-Fen, Super Coaches (Upminster), Limited, applies for the Emerson Park Halt—Hornchurch Station service of A. G. Sterling. R. Murray and Sons, Stranraer, applies for the excursions and tours from Portpatrick of T. E. N. Black. Prospect Coaches (Barnard Castle), Ferryhill, applies for the licences of Maude and Son for services from Barnard Castle to Richmond, and Boldon. Grimsby-Cleethorpes Transport proposes two new bus services which would replace the Grimsby-Cleethorpes trolleybus service and various bus routes. Southampton Corporation applies for a new feeder service (19) on a circular route from the junction of Weston Lane and Wallace Road. North Western Road Car Co., Limited, and Cash's Coaches, Limited, propose co-ordination of excursions and tours from Warburton, Partington Green and Carrington, while Cash's also applies for similar arrangements with Wheatleys Garage (Patricroft), Limited.

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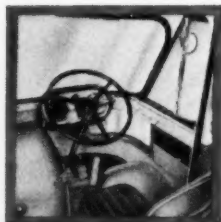
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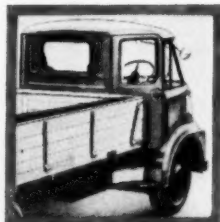
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MC 47

AT THE SWISS SHOW

Vehicles Designed for New Regulations*

FIRST of the Saurer vehicles designed to meet the revised regulations, making its debut on that company's stand, was the 5D tipper. Powered by the Saurer CT2D diesel engine of 165 h.p. with mechanical blower, it has a wheelbase of 14 ft. 9 in. and a gross weight of 16 tons with 9-ton payload. It appeared with a three-seat plastics cab of new frontal design. Some 15 Saurer goods and passenger vehicles were on display altogether, including a Type V2H passenger chassis with hand-some Egli 34-seat touring coach body having a lowered front extension and raised saloon floor (reminiscent of the Dennis underfloor Lancet) to provide both extensive underfloor luggage space and a good view for passengers.

A wide range of Berna goods and passenger vehicles was also presented on the manufacturer's and various coachbuilders' stands. A feature of the Berna V2H Ramseier and Jenzer-bodied 34-seat

larger vehicles by P.A.Z. in the outside park. The smaller buses were unremarkable, appearing much like western vehicles of similar capacity, if rather more angular as to line. The other exhibits comprised a P.A.Z. 652—a 25-seat bus or coach obviously intended for country and feeder bus services or party work in small communities—and a P.A.Z. 697 33-seat touring coach. The 652 had a petrol engine mounted conventionally at the front and four-speed countershaft gearbox and was interesting for its rear suspension, which used normal shackled semi-elliptic springs underslung and a second lighter semi-elliptic spring with slipper ends bearing on projections from the chassis overhung on each side. The 697 also had a vertical petrol engine, mounted longitudinally at the rear in an integral chassis body structure. Features of the interior appointments were individually adjustable reclining seats—though with rather firm uphol-



New Berna 175-h.p. diesel tractor coupled to Ackermann refrigerated semi-trailer for 21 tonnes gross weight and, right, new Hurlimann diesel haulage tractor

Car Alpin—a lightweight integral touring coach with vertical four-cylinder 115-h.p. diesel engine mounted longitudinally in a hump at the rear, which has a loaded weight of 9,200 kg.—was an extensively faired underside designed to eliminate recesses and angles in and on which thrown-up snow or slush can accumulate.

An interesting new Swiss passenger vehicle on show for the first time was the integral touring coach by Lauber et Fils S.A., incorporating British Commer running units, which development we reported in MODERN TRANSPORT for December 26, 1959. This steel-framed aluminium-panelled vehicle is produced in two sizes for 22-26 or 30 seats and has very large underfloor luggage space. The Rootes 105-h.p. opposed-piston two-stroke engine is mounted in a hump at the rear and drives the Eaton two-speed rear axle through a Commer four-speed synchromesh gearbox. A Commer front axle is controlled through standard Marles steering gear, which can be arranged either on the right or left, and the gearbox has hydraulic remote control.

Passenger Vehicle Gimmickry

A feature of the body trim of the vehicle on show, of doubtful legality but conducive to maximum passenger comfort, was electrically controlled lateral spacing of the individual reclining seats. For loading and unloading seats are set in pairs conventionally with centre aisle; when loaded, a switch by the driver moves all the seats simultaneously towards the centre, through the agency of windscreen-wiper motors, gearing and levers (one to each pair of seats), providing rows of four equidistant seats from front to back and excellent elbow room for each passenger, but possibly making exit difficult in an emergency.

Two other new passenger vehicles shown, both of German origin, were a Neoplan touring coach and a 12-seat bus by Tempo. The Neoplan—a

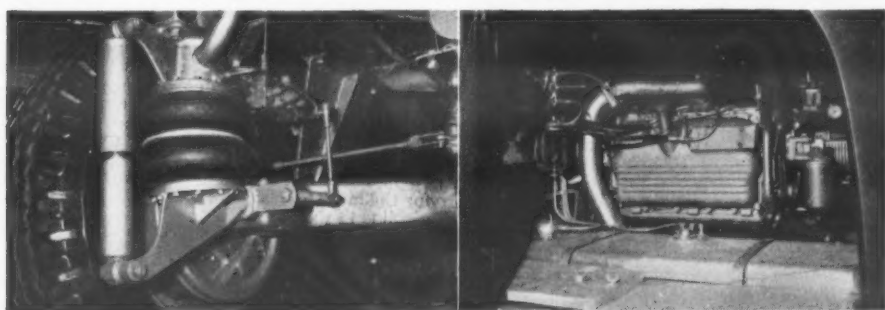
story—individual reading lamps in the back of each seat as well as ashtrays and paper racks, radio and public-address system and fully fitted carpets over the entire floor.

The use of large haulage tractors, a form of local and terminal transport much used in Germany and, with more liberal trailer weight and speed regulations, which is likely to increase in Switzerland, was illustrated on the stand of Hans Hurlimann, which showed a new haulage tractor. Powered by a Hurlimann four-cylinder direct-injection diesel engine of 85 h.p. and equipped with a five-speed gearbox, air-hydraulic four-wheel brakes, locking differential and a fully equipped cab, the tractor weighs about 4 tons and has a top speed of about 32 m.p.h. It costs £2,500 without cab.

Flexible Tractor

An example of the horizontally flexible Meili Metrac six-by-six tractor, first described in MODERN TRANSPORT dated February 28, 1959, was also on show with a crane mounted on the load-carrying section. The Meili tractor, now renamed Flex-Trac, is remarkable for its ability to surmount even vertical-sided obstructions of up to about bonnet height. We were told at the show that the Swiss patentee, E. Meili Tractor Works, Schaffhausen, had just issued a manufacturing licence for the design to the American Clark concern.

All of the Swiss trailer manufacturers were showing trailers developed for operation at the new weights. Ackermann had a very large-capacity refrigerated semi-trailer, linked to a new Berna articulated tractor, designed for operation at 21 tonnes gross, while Draize showed a 10-tonne two-axle independent trailer claimed to be as easy to reverse as a semi-trailer. This is achieved by a steerable rear axle, normally locked parallel for forward travel, but equipped with compressed-air steering gear on both trailer axles, under the con-



Georg Fischer pneumatic suspension on Greuter four-wheel trailer and, right, Rootes two-stroke diesel installation at rear of Lauber coach, which also uses other Commer running units

refrigerated semi-trailer, linked to a new Berna front-entrance vehicle of integral construction embodying Henschel running units—had pneumatic suspension, the front units of which under the control of the driver could be lowered about 3 in. from the normal running position to provide easier boarding and alighting. The Tempo, which uses the B.M.C. 1½-litre petrol engine and is built under licence in Britain by Jensen, demonstrated to the full the potential advantages of the front engine-front drive design by providing about a 12-in. floor line in the spacious passenger saloon, reached by two 6-in. steps through a jackknife side door.

Italian Sun Parlour

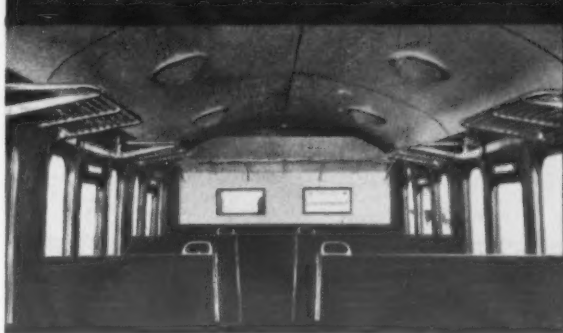
Like the Germans, following the mode set by Kässbohrer with its Setracar some years ago, all the Swiss coachbuilders, supported by operators, now favour extensive translucent panelling in the roof coving of touring coaches. All were outdone this year by an Italian Orlandi-bodied 24-seat de luxe coach on a Fiat 314 underfloor diesel chassis, which appeared on the Fiat stand. This chassis also has a dropped front end and driver's platform, giving a good forward view for passengers; with 100-h.p. diesel engine, the chassis alone costs £2,850 in Switzerland. The outstanding feature of the body, which is luxuriously appointed, is a structure above waist level consisting almost entirely of framework, windows and only slightly tinted transparent plastics. The centre section of the roof comprises three large-area Weather-shields opening ventilators and two opaque sections about 3 ft. by 2 ft.—the only opaque panelling above waist level. Protection from the sun is provided by an extensive (and probably expensive) complement of blinds.

Current Russian practice with public service vehicles was illustrated in two small buses, an eight-seater and a 12-seater, both by R.A.F., appearing in the commercial vehicle hall and two

* First part appeared last week.

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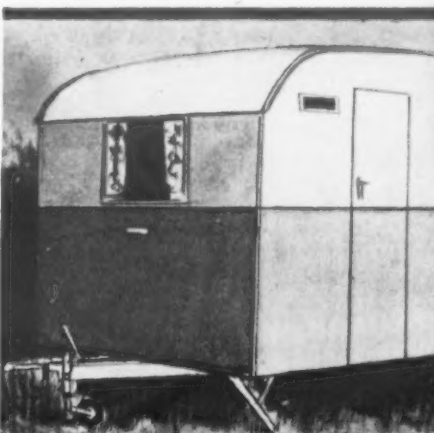


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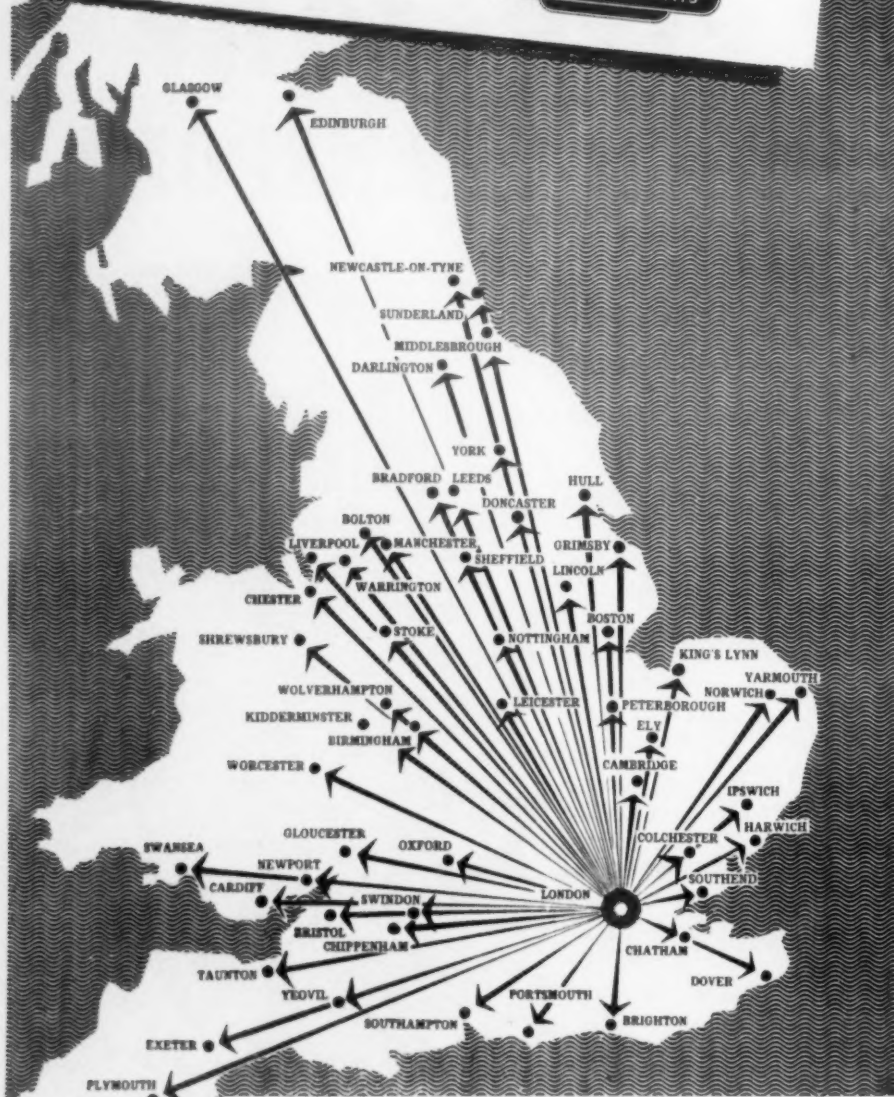
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BRITISH RAILWAYS

**BRITISH RAILWAYS
EXPRESS FREIGHT**

No. 92220 in steam

Evening Star by Mr. K. W. C. Grand, a member of the British Transport Commission, preparatory to entering service. It was a nostalgic day, yet a mark of the progress made in modernisation. The engine, No. 92220, is a Class 9F 2-10-0 freight locomotive, with two 20 in. by 28 in. cylinders, 5-ft. coupled wheels, 250 lb. sq. in. boiler pressure, 2,550 sq. ft. of heating surface including superheater, 40.2 sq. ft. of grate area and a 39,667-lb. tractive effort. The weight of engine and tender in working order is 139 tons 4 cwt.

The naming of the engine *Evening Star* was the direct result of a competition in the *Western Region Magazine*, by which ten guineas was offered

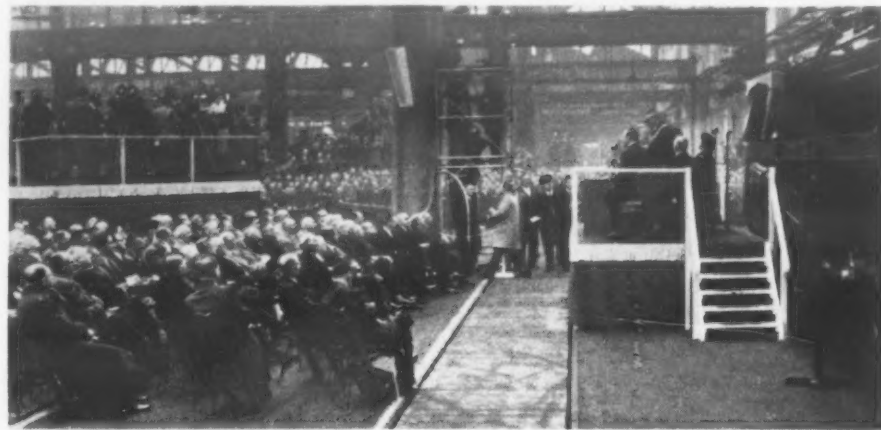
EVENING STAR**B.R. Builds Last Steam Locomotive****SWINDON NAMING CEREMONY**

AT Swindon works on March 18 the last steam locomotive to be built for British Railways was named

is so human and so gentle and yet, when unleashed, is capable of such prodigies of strength—nothing quite so graceful in action and nothing quite so romantic. Those of us who have lived in the steam age of railways will carry with us always the most nostalgic memories."

Looking Forward

Although No. 92220 is not of Great Western family she is in green livery and has been honoured by having conferred upon her "the halo or crown of Swindon—that mystical copper top to her chimney," as Mr. Hanks called it. Swindon, he emphasised, was not looking backwards but to a future with diesel traction, to which he was thankful to find the present generation had adapted themselves so quickly and so skilfully—their up-to-date techniques were on show in an exhibition, which also included, for the nostalgic, a Castle, a King, *City of Truro* and the Caledonian 4-2-2 No. 123. The forward looking could see parts of diesel-hydraulic



The scene in A shop at Swindon works after "Evening Star" had been named before a large and distinguished audience and the men from the works

by Mr. R. F. Hanks as a prize for the most suitable name. *Evening Star* was submitted by three members of the staff: Mr. F. L. Pugh, of the general manager's office, Paddington; Mr. T. M. Phillips, an engine driver of Aberystwyth; and Mr. J. S. Sathi, a boiler washer at Old Oak Common. They were invited to the ceremony and presented, by Mr. Hanks, with cheques for five guineas each. The choice is a happy coincidence, for one of the first locomotives ordered by the former Great Western Railway was given that name; in 1906, a series of G.W.R. four-cylinder express locomotives was started, which became known as the Star class and led to the development of the Castle and King classes between the wars.

A Moving Occasion

Introducing Mr. Grand, Mr. R. F. Hanks, chairman of the Western Area Board, said it was a moving occasion. "But it is also a very proud day for Swindon and I trust I shall not be considered parochial when I say that Great Western men everywhere will find satisfaction, since there had to be a last one, that it should fall to the lot of Swindon to see the job through. For 118 years these works have specialised in steam locomotive production of quite outstanding merit and in this last of a great line we pay tribute to Gooch and Armstrong and Dean and Churchward and Collett and that great band of Swindon craftsmen who, through so many decades, have backed their leaders and given of their best.

"I am sure it has been truly said that no other product of man's mind has ever exercised such a compelling hold upon the public's imagination as the steam locomotive. No other machine, in its day, has been a more faithful friend to mankind and has contributed more to the cause of industrial prosperity in this, the land of its birth, and throughout the world. No other machine somehow

locomotives of the Warship class and examples of that type in all stages from tubular frames to completion.

Commemorative Plaque

The naming ceremony was carried out by Mr. K. W. C. Grand, member of the British Transport Commission and former general manager, Western Region, who pulled a cord to reveal the nameplate *Evening Star*, below which appears the inscription: "No. 92220 built at Swindon, 1960. The last steam locomotive for British Railways. Named at Swindon on March 18, 1960, by Mr. K. W. C. Grand, Esq., member of the British Transport Commission."

Among those present, besides present-day members and officers of the British Transport Commission, were Sir William Stanier, Messrs. O. V. S. Bulleid, H. G. Ivatt, F. W. Hawkesworth, K. J. Cook and R. A. Riddles, the last-mentioned responsible for the design of the B.R. standard steam locomotives. Also on the platform was Mr. Alfred Smeddle, chief mechanical and electrical engineer, Western Region. A vote of thanks was given by the Mayor of Swindon.

Davey, Paxman and Co., Limited, Colchester, has granted a further manufacturing licence for its diesel engines. The latest licensee is Est. Dujardin et Cie, of Lille, France, which will manufacture the Paxman 7-in. bore range of engines for oilfield, rail traction, marine and industrial purposes for sale in France and French overseas territories. The British company now has two French licensees, the other being Société des Forges et Chantiers de la Méditerranée, Le Havre, which is already producing engines of the Paxman YL range, including engines for the much publicised Hassi-Messaoud-Bougie oil pipeline in the Sahara.

Carmen's Company Dinner**ROYAL GUEST AT MANSION HOUSE**

A MILESTONE in the 450-year history of the Worshipful Company of Carmen was reached this week when the liverymen entertained for the first time a member of the Royal family. The occasion was the annual dinner of the liverymen at the Mansion House, this year attended by

The toast to the Lord Mayor, the Corporation of London and the Sheriffs was proposed by Mr. R. G. L. Cheeseman, immediate Past Master. He paid tribute to London's civic system. It was largely because of the hard work by Lord Mayors and the City Corporation that London was the financial centre of the world and that this country could trade in safety and security. Sir Edmund, replying, briefly reviewed the various duties of Carmen.

The president of the City Livery Club, Alderman J. L. P. Denny, proposed the toast to the Company. He reflected on its present prosperity and added: "One is led to the reflection that at any minute now the Carmen's Company might make a take-over bid for one of the major Companies!" Colonel Pye replied and said that the Carmen's Company had provided London with no fewer than four Lord Mayors this century. He referred to the Company's motto *Skilfully, Speedily and Surely* and said that today when one thought of road speed one thought of the M1 motorway. In this connection the Company had decided to award to the builders of M1—John Laing and Son, Limited—the Viva Shield for 1959, a much coveted award presented annually for outstanding transport improvement.

He went on to refer to road accidents. "I think every user of the road is to blame," he said. "Every one should be controlled equally—the pedestrian should be made to keep to the road rules as well as the motorist." He suggested that as an immediate help to the road user, particularly in large cities, the authorities should give consideration to the abnormal width of some pavements.

Mr. Raymond Birch, Senior Warden, proposed "The Guests" and Lieut.-Col. J. K. L. Mardon, Master of the Society of Merchant Venturers of Bristol, replied.



The Master of the Carmen's Company, Col. J. F. E. Pye, at the Mansion House, with Senior Warden Mr. Raymond Birch and Junior Warden Mr. Herbert Crow

H.R.H. the Duke of Gloucester. Others present included the Lord Mayor of London (Sir Edmund Stockdale) and the Sheriffs, the Cuban Ambassador and Field-Marshal Sir Claude Auchinleck. The Master, Colonel John F. E. Pye, presided.

REVISED AIR FARES

Results of I.A.T.A. Conference

PARIS SESSION SOLVES SOME PROBLEMS

THE special meeting of the composite traffic conference of the International Air Transport Association finished its session in Paris last week. The principal feature of the meeting was a decision to introduce lower fares in the low fare class of service in many parts of the world. It was decided also that in future only two classes of service should be offered to passengers—first-class and a lower-class service to be known as either economy or tourist class, according to the area in which it was provided. "The conference covered a good deal of ground," said Mr. V. H. L. Dubourg, senior vice-president of K.L.M. (Royal Dutch Airlines), who was chairman of the meeting. "A great many fare changes are involved. For this reason it is difficult to give a really comprehensive statement covering all aspects of its work. However, in view of the special circumstances carriers will, on this occasion, be free to make their own statements without the usual delay; all fares are subject to government approval."

On the North Atlantic an important step taken by the carriers was the introduction of a special excursion fare of 17 days' validity based on a figure of \$350 return between New York and London on jet aircraft and \$320 return for propeller aircraft on economy services from October 1, 1960, to March 31, 1961. This new excursion fare should prove a powerful attraction to passengers who wish to keep their travel costs as low as possible. It will in fact result in a round-trip fare of \$299 being available on propeller aircraft between Montreal and London.

Basic Atlantic Fare

The carriers established a fare based on an amount of \$500 single between New York and London in the highest class of service which will, in future, be referred to officially as first class for jets, and first-class sleeper-seat for propeller aircraft—the term de luxe being completely abandoned. This fare will apply both to jet aircraft first-class configuration and to propeller aircraft on which sleeper-type seating is provided. There will also be a first-class propeller fare at \$440 single between New York and London which will apply only in the case of aircraft with normal first-class seating. Agreement was reached that only two classes of service, first class and economy, should be offered as from July 1, 1960. Up to that date it will be permissible to provide the present type of North Atlantic tourist service.

Basic economy fares for jets were agreed on a basis of \$270 single between New York and London and \$254 single between Montreal and London. Economy-class and propeller aircraft will offer lower fares still. From May 1 to September 30 economy fares on such aircraft will be \$20 less single and \$36 less return than the basic jet fares, and from October 1 to March 31 they will be \$30 less single and \$54 less return than the fares available on jet

aircraft. Fares between other points in North America and other points in Europe and the Middle East will follow the same pattern. The New York—London fares are used as the key figures in discussion and agreeing fares across the North Atlantic. The conference renewed the present reductions offered for family travelling in the off-season on both classes of service.

Mid-Atlantic Rates

On the routes across the Mid-Atlantic the carriers decided to maintain the present fare structure with some minor modifications until October 1, 1960. Thereafter, while the level of first-class fares will remain virtually unchanged, the term de luxe will be discontinued, and the highest fare will apply equally to jet aircraft offering normal first-class configuration and to propeller aircraft on which sleeper-type seating is provided. There will also be a lower first-class fare applicable only to propeller aircraft as on the North Atlantic.

As from October 1, too, the name of the low-class service will be changed to "economy," with reductions of up to 16 per cent below current tourist-fare levels. Present conditions of service will remain in force, and fares on propeller aircraft in economy service will be at least \$30 single less than the economy fares on jets, the exact amount depending on the actual sector flown. Special student fares will also be introduced on Mid-Atlantic services as from May 1.

Far East Routes

The fares between Europe and the Far East and Australasia were satisfactorily agreed. With effect from October 1 first-class fares between Europe and the Far East were increased by a small percentage, while tourist fares were reduced by amounts ranging between 6 per cent and 10 per cent over the same sectors. The low-fare service will be renamed economy class as from October 1, and fares on jet and propeller aircraft will be the same, but there will be a seating differential in favour of propeller aircraft. As a special attraction to tourist traffic, excursion fares from Europe to India, Pakistan, Ceylon and Nepal were agreed and these fares will provide parties of six or more, travelling together on an inclusive tour basis, with a reduction of 22 per cent on the normal applicable fares. These will come into force on May 1.

Although first-class fares between Europe and Africa will be raised as from October 1, the tourist fares will be reduced in general by amounts up to 10 per cent. In addition to the general reduction, special return excursion fares will be introduced between the Union of South Africa and points in Europe. Similar round-trip excursion fares will also be introduced between the United Kingdom and Northern Ireland and the Union of South Africa. Both these excursion fares will have a validity of 90 days and will show reductions of 16 per cent

(Continued on page 9)

THINK OF POWER



A topical example of Napier power is the Canadair/Convair 540 airliner whose jet prop Napier Eland engines have been approved by the F.A.A. and the A.R.B. Allegheny Airlines and the R.C.A.F. are at present operating these Eland powered Convaers. In addition to its roles of military transport and airliner, the Canadair/Convair 540 is readily convertible to an all-cargo version or an executive aircraft. Napier power, in fact, is versatile power.

Napier power is also expressed in Turbo blowers and Deltic Diesel engines which are found in marine, industrial and rail traction applications throughout the world.

THINK OF NAPIER

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Electric Traction Conference

PAPERS TO BE READ IN LONDON

THE programme for the British Railways Electrification Conference and Exhibition, which is to be held in London on October 3-7, has now been published and is set out below. It will be seen that 11 papers are to be read and discussed. A further 30 will be distributed and discussed.

PAPERS TO BE PRESENTED TO CONFERENCE

- 1—Electrification in the Modernisation of British Railways: The choice of the 50-cycle System, by S. B. Warder, M.I.E.E., M.I.Mech.E., Chief Electrical Engineer, British Railways Central Staff, B.T.C.
- 2—The Application of the 50-cycle System as proved by System Tests, by J. A. Broughall, B.Sc.(Eng.), M.I.E.E., Electrical Engineer (Development), B.R. Central Staff, and F. J. Lane, O.B.E., M.Sc., M.I.E.E., Consulting Engineer, Messrs. Price, Cardew and Rider.
- 3—The Locomotives, by E. S. Cox, M.I.Mech.E., Assistant Chief Mechanical Engineer, B.R. Central Staff, and G. G. Kibblewhite, B.Sc.(Eng.), A.M.I.E.E., Assistant (Rolling Stock Equipment) (C.E.E. Department), B.R. Central Staff.
- 4—The Multiple Unit Trains, by H. Wilcock, B.Sc.(Eng.), A.M.I.Mech.E., Design Engineer (Standard), C.M.E. Dept., B.R. Central Staff, and C. J. Clemow, B.Sc.(Eng.), Senior Technical Assistant (M.U. Equipment), C.E.E. Dept., B.R. Central Staff.
- 5—The Power Supply, by W. J. Webb, B.Sc.(Eng.), A.M.I.E.E., Assistant Technical Engineer (Systems), C.E.E. Dept., B.R. Central Staff.
- 6—The Overhead Line Equipment, by E. Claxton, B.Sc.(Eng.), M.I.C.E., M.I.E.E., A.M.I.Mech.E., Assistant Electrical Engineer (Development), C.E.E. Dept., B.R. Central Staff.
- 7—The Erection of the Overhead Line Equipment, by J. W. Grive, B.Sc., M.I.E.E., Electrical Engineer (New Works), Eastern Region, B.R., and A. H. Emerson, A.M.I.E.E., Electrical Engineer, C.M. and E.E. Dept., L.M. Region, B.R.
- 8—Civil Engineering Aspects, by A. K. Terris, B.Sc., M.I.C.E., Chief Civil Engineer, Eastern Region, B.R.
- 9—The Interference Problem, by H. R. J. Klewe, Dr. Phil., M.I.E.E., Senior Technical Assistant, C.E.E. Dept., B.R. Central Staff.
- 10—Signalling and Telecommunications, by A. W. Woodbridge, O.B.E., M.Sc., M.I.E.E., Chief Signal Engineer, B.R. Central Staff.
- 11—Research for A.C. Traction, by F. T. Barwell, Wh.Sch., Ph.D., B.Sc.(Eng.), M.I.Mech.E., A.M.I.E.E., Electric Traction Engineer (Research), B.R. Central Staff.

CONCLUSION by R. C. Bond, M.I.C.E., M.I.Mech.E., Technical Adviser, British Transport Commission.

PAPERS TO BE PRINTED AND DISCUSSED BUT NOT READ

- 12—System Tests: Instrumentation and Measurement, by W. J. Webb, B.Sc., A.M.I.E.E., Assistant Electrical Engineer (Systems), C.E.E. Dept., B.T.C., and W. Woods Hill, Manager (Computer Division), Microcell, Limited.
- 13—System Tests: Evaluation of Results, by G. H. Hinds, O.B.E., B.Sc., Electronics Advisory Officer, B.T.C., and T. A. Eames, M.Sc., F.I.P., Supt. Math. and Physics Section, Engineering Division, B.R. Research Dept.
- 14—The Consulting Engineer's Contribution to 50-cycle Electrification, by E. Wheatcroft, M.A., M.I.Mech.E., M.I.E.E., Partner, Merz and McLellan, Consulting Engineers, Limited, North British Locomotive Co., Limited.
- 15—Locomotives: Nos. E.3001-23, E.3301-2 (A.E.I. Rugby) by M. W. T. Rees, B.Sc., A.M.I.E.E., Chief Engineer, Traction Dept., Rugby.
- 16—Locomotives: Nos. E.3024-35, E.3303-5 (E.E. Co.) by W. G. Jowett, B.Sc.(Eng.), A.M.I.E.E., Chief Engineer (Traction), English Electric Co., Limited, and S. C. Lyon, Chief Design Engineer, Rolling Stock Design Dept., English Electric Co., Limited.
- 17—Locomotives: Nos. E.3036-45 (G.E.C.) by W. D. Morton, M.A., A.M.I.E.E., A.M.I.Mech.E., Manager Traction Division, General Electric Co., Limited, and H. W. Scott, Chief Designer, North British Locomotive Co., Limited.
- 18—Locomotives: Nos. 3046-55 (A.E.I., Manchester), by G. R. Higgs, B.Sc., M.I.E.E., Divisional Chief Engineer, A.E.I. Traction Division.
- 19—Locomotives: Nos. E.3056-95 (B.R./A.E.I., Rugby), by G. G. Kibblewhite, B.Sc., A.M.I.E.E., Assistant (Rolling Stock Equipment), C.E.E. Dept., B.R. Central Staff, and F. Horne, Chief Locomotive Draughtsman, C.M.E.E. Dept., Eastern Region, B.R.
- 20—Photographs for Locomotives and Multiple Unit Trains, by E. E. Chapman, B.Sc., M.I.Mech.E., M.I.E.E., Director and Chief Engineer, J. Stone and Co. (Deptford), Limited.
- 21—Effect of Dynamic Performance of Rolling Stock on Current Collection, by J. L. Koffman, Design Engineer (Projects),

C.M.E., B.R. Central Staff, and H. L. Preston, Senior Technical Assistant (Inspection), C.E.E. Dept., B.R. Central Staff.

- 22—Effect of Electric Rolling Stock on Track, by J. C. Loach, M.Sc., M.I.Mech.E., A.M.I.C.E., Superintendent Research Permanentway Section, Engineering Division, B.R. Research Dept.
- 23—Locomotives and Multiple Unit Trains under Development, by J. A. Broughall, B.Sc., M.I.E.E., Electrical Engineer (Development), B.R. Central Staff, and E. S. Cox, M.I.Mech.E., Assistant Chief Mechanical Engineer, B.R. Central Staff.
- 24—Multiple Unit Train Equipments for Manchester—Crewe Line (A.E.I., Rugby), by M. W. T. Rees, B.Sc., A.M.I.E.E., Chief Engineer, Traction Dept., Rugby, A.E.I., Traction Division, and R. Bugler, M.A., A.M.I.E.E., Engineer, Traction Dept., Rugby, A.E.I. Traction Division.
- 25—Multiple Unit Train Equipments for London—Tilbury—Southend Line (E.E. Co.), by H. B. Calverley, B.Sc.(Eng.), A.M.I.E.E., Assistant Chief Engineer (Development), English Electric, and E. Williams, B.Sc.(Eng.), A.M.I.E.E., Control Gear Designer, Traction Control Design, English Electric Co., Limited, Bradford.
- 26—Multiple Unit Train Equipments for Liverpool Street—Enfield—Chingford—Hertford—Bishop's Cleeve (G.E.C.), by R. Ledger, B.Sc.(Tech.), A.M.I.E.E., Chief Traction Machine Engineer, General Electric Co., Limited, and J. C. Turrell, A.M.I.E.E., Chief Traction Control Engineer, General Electric Co., Limited, Birmingham.
- 27—Multiple Unit Train Equipments for Glasgow Suburban Lines (A.E.I., Manchester), by G. R. Higgs, B.Sc., M.I.E.E., Divisional Chief Engineer, A.E.I., Traction Division, and I. G. Sommerschild, M.Sc., A.M.I.E.E., Engineer, Traction Projects Dept., A.E.I. Traction Division.
- 28—Power Supply: The Railway Load, by W. Casson, M.I.E.E., Transmission Division Engineer, E.G.B., and W. L. Kidd, B.Sc., M.I.E.E., A.M.I.C.E., System Design Engineer, South of Scotland Electricity Board, Glasgow.
- 29—Power Supply: Oil-insulated Switchgear, by F. G. Rowland, M.I.E.E., Director and General Manager, Switchgear and Cowans.
- 30—Power Supply: Air-insulated Switchgear, by A. T. Haselfoot, M.A., M.I.E.E., Director and Chief Engineer, Fuller Electric, and G. T. D. Ingle, M.A.(Cantab.), Manager, Power Dept., Fuller Electric.
- 31—Power Supply: Protection Systems, by F. M. Pearce, B.Sc.(Eng.), A.M.I.E.E., Engineer, Instruments and Meter Dept., Instrumentation Division, A.E.I., and G. T. D. Ingle, M.A.(Cantab.), Manager, Power Dept., Fuller Electric.
- 32—Power Supply: Remote Control of Power Distribution, by A. H. Cole, A.M.I.Mech.E., Senior Technical Assistant, C.E.E. Dept., B.R. Central Staff, G. A. Burns, Chief Engineer (Power Signalling Division), A.T.E. Co., and G. Gordon White, B.Sc., Sales Engineer, Instrumentation and Control Division, Standard Telephones and Cables.
- 33—Overhead Equipment: The Catenary System, by C. E. Allen, A.M.I.C.E., Chief Traction Engineer, B.I.C.C., and A. Goldring, B.Sc.(Tech.), A.M.I.E.E., Senior Technical Assistant, C.E.E. Dept., B.R. Central Staff.
- 34—Overhead Equipment: Insulators, by G. H. W. Clark, Ph.D.(Eng.), A.M.I.E.E., Chief High Voltage Engineer, Seateite and Porcelain Products, Limited.
- 35—Overhead Equipment: Structures and Foundations, by H. H. Storey, Assistant Manager (Design) Traction Contracts, B.I.C.C. Co., Limited, and a B.R. officer.
- 36—Overhead Equipment: Erection, by T. H. Rosbotham, B.Sc., District Engineer, B.I.C.C., and I. J. Hall, B.Eng., Resident and Construction Engineer, Pirelli General Cable Works, Limited.
- 37—Effect on Post Office Circuits, by D. W. R. Cobbe, A.M.I.E.E., Senior Executive Engineer (Construction Branch), Post Office Engineering Department, and B. R. Horsfield, A.M.I.E.E., Senior Executive Engineer (Telephone Branch), Post Office Engineering Dept.
- 38—Signalling Equipment (A.E.I.—G.R.S.), by G. I. Foster, B.Sc., Signal Engineer, Signals Dept., A.E.I. Traction Division.
- 39—Signalling Equipment (Siemens and General Electric Railway Signal Co., Limited), by H. J. N. Riddle, A.M.I.E.E., M.I.R.S.E., Design and Development Engineer, Siemens and General Electric Railway Signal Co., Limited.
- 40—Signalling Equipment (Westinghouse Brake and Signal Co.), by D. G. Shipp, B.Sc., M.I.E.E., M.I.R.S.E., Assistant Divisional Manager, Signal and Colliery Sales, Westinghouse Brake and Signal Co., Limited.
- 41—Railway Telecommunications, Cables and Equipment, by D. R. Turner, M.Eng., M.I.E.E., M.I.R.S.E., Assistant Telecommunications Engineer, Chief Signal Engineer's Dept., B.R. Central Staff.

NEW ENGINE ★

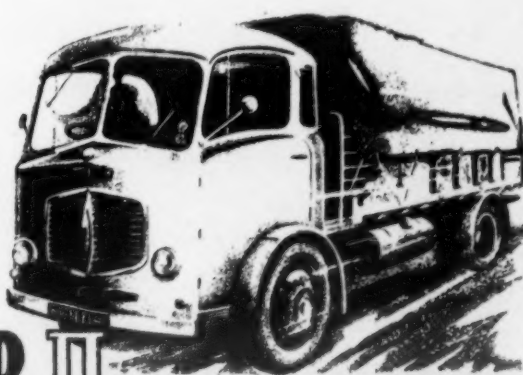
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Inter-Terminal Luggage Transfer

Railway passengers crossing Paris between stations with luggage, but with a few hours between trains can now dispose of the luggage by means of a useful new facility provided by French Railways. The luggage is deposited in the cloakroom at the arrival station and transferred by road van to the departure station twice a day, morning and afternoon, at a charge of NFr.2 for each piece. This is termed the "transit cloakroom" service.

Birmingham Underpass to Go Ahead

A Ministry of Transport grant of £585,000 is to be made to Birmingham Corporation towards the cost, estimated at £967,500, of constructing an underpass, with slip roads, to carry Birchfield Road (A34) under the Outer Ring Road. The present junction forms one of the worst traffic bottlenecks on the main radial road from the city centre to Walsall and beyond. A similar underpass is planned at Six Ways, Aston.

Highlands Transport Inquiry

An inquiry into transport problems of the Highlands and Islands was opened on Monday in Edinburgh. Lord Cameron, chairman of the Highland Panel, and Lord Kilbrandon, chairman of the Scottish Transport Council, discussed the general situation with representatives of British Railways, British European Airways, Highland Omnibuses, Limited, and David MacBrayne, Limited. At a later stage operators of rail, air, sea, and road services may be invited to air their views.

Chorleywood Stop for L.M.R. Trains

As part of the improvements now being carried out on the London Transport Metropolitan Line it has been decided, in agreement with the London Midland Region, to lengthen Chorleywood Station platforms to enable them to be used by London Midland Region trains. When the new services are introduced in 1962, British Railways trains will make Chorleywood their first stop after Harrow-on-the-Hill, calling thereafter at all stations to Aylesbury and vice versa.

Road Building Slow-Down Feared

The British Road Federation says it welcomes the increases in Government road spending in the year ahead shown in the detailed civil estimates now published. New road construction spending will be some £13 million up on the present year. Road maintenance, at £38,800,000, shows an increase of £1 million. But the estimates show a red light for the road programme. In the four years ending 1961-62 capital authorisations for schemes in Great Britain are, according to the Government announcement in July, 1957, to total £280 million. Of this sum, some £250 million will have been authorised by March, 1961, leaving only £30 million for the fourth and final year of the present programme. Moreover, authorisation is only a first step to the construction of a new or improved road. The schemes upon which work will be started over the next few years ought now to be reaching authorisation stage. The danger of a slow-down in work is obvious; this can be averted by a fresh allocation of capital for a new road programme.

To Seek Traffic in Sweden

A British Waterways commercial mission with a shipboard exhibition illustrating Britain's canal and inland waterway services is visiting Gothenburg, in Sweden. Traders, shippers, and others concerned with Anglo-Swedish trade were invited to meet waterway representatives and to see the exhibition which, with the co-operation of the Ellerman's Wilson Line, was staged aboard the s.s. *Cicero*. The British Waterways team recently visited Norway with the same objectives.

Railway Warehouse at Dundee

The former Tay Bridge goods depot at Dundee has been converted into a modern rail-connected warehouse with up-to-date handling equipment. The new warehouse is a brick structure 400 ft. long by 144 ft. wide with a 120-ft. long loading platform floor space of 3,600 sq. yd. for the storage of goods. The floor of the depot has been made up to road level and a concrete surface laid. The east and west entrances for road access have been fitted with sliding doors. The rail entrance has a roller shutter door. The mechanical handling equipment, which is battery-powered, includes two fork-lift trucks, three loaders (portable conveyors) and two pallet trucks, providing complete facilities for dealing with palletised traffic.

Douglas Horse Trams

In his budget speech to the Douglas Town Council, Councillor W. B. Kaneen, a member of the House of Keys (the Manx Parliament) stated that the future of transport must give cause for added anxiety. "In the light of the past year's experience on the horse trams," he said, "the background of negotiations now going on and the intense competition of the private vehicle, I am inclined to think public transport may now be on the edge of the precipice. Our friends, Isle of Man Road Services, have joined with us in part appeals to the Lieut. Governor for remission of the fuel tax." Horse trams might have to be disregarded as part of the transport's system and continued at an entertainment fare, as a season attraction only with a reduced number of trams and horses.

Wait-and-See Advice on Rail Rates

Cautionary comments on forecasted higher railway rates arising out of the report on railway-men's wages were offered in Leeds by Mr. W. H. Vine, chief commercial officer of the North Eastern Region. A careful study of the Prime Minister's statement about the railway future, said Mr. Vine, would reveal its guarded terms, but at once the national Press had seized upon the fact that freight charges were to go up. Knowing the background policy, he did not want anybody to be disturbed by what they had read. "Today, tomorrow, a year hence," he said, "our freight charges will be the market price. We are not a monopoly. We shall charge those rates which are necessary to secure our wellbeing but which will also meet market competitive conditions. The market will be our ruling figure."



THE Tougher

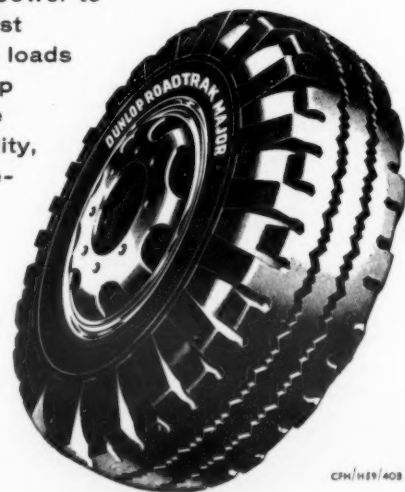
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CPH/101/408

COMMERCIAL AVIATION

Remarkable I.A.T.A. Clearings

B.E.A. AND LICENSING

INTERNATIONAL airline transactions were put through the I.A.T.A. Clearing House at London at a rate of nearly £1 million daily during 1959, the International Air Transport Association has announced. Total turnover for the year was £360,970,000, a record for the 13-year operation of the clearing house and 24 per cent above the 1958 figure of £292 million. Total turnover for the 13 years of this I.A.T.A. facility amounts to £1,661,000,000. Offsetting members' counterclaims upon one another eliminated the need for cash payment of 89.4 per cent of the value of all transactions cleared through I.A.T.A. during 1959. Offset of individual member's monthly clearances exceeded 99 per cent in 22 cases last year and in four of these the offset was 99.8 per cent or better. The most striking case was an offset of 99.9 per cent in May whereby one airline's turnover of £30,577 was settled by the single payment of £1. While this clearance was modest in total its offset ratio represented the nearest approach to infinity the clearing house has ever had. The clearance covered transactions between the airline concerned and 38 others and involved 20 payments and 18 collections to a total of £12,609 in 22 different currencies. The single payment of £1 eliminated all such separate transactions. On January 1 of this year the clearing house handled clearances for 73 of I.A.T.A.'s 90 member airlines, as compared with 67 out of the 87 I.A.T.A. members who were customers on January 1, 1959. The total number of accounts for which clearing facilities were provided during the year grew from 94 to 99. This includes the 73 I.A.T.A. members, 22 U.S. domestic carriers served by inter-clearance arrangements with the Airlines Clearing House Inc. in the United States and four special accounts. Inter-clearances with A.C.H. totalled \$36,202,565 for the year, which was up 15 per cent on the 1958 total of \$31,468,594.

Skyways Service Suspended

The Skyways Crusader service from London to Cyprus, via Tunis and Malta, has been temporarily suspended. Arrangements are being made for all passengers to be carried on the British European Airways night tourist services.

T.W.A. Plans More Flights

Trans World Airlines will increase its daily non-stop jet services between London and New York to two a day at the beginning of the peak spring and summer transatlantic travel seasons. Services operated between Paris and New York will also be doubled to give a twice-daily frequency. On April 26 it will add three more return flights weekly between London and New York and, on May 19, this frequency will be increased to 14 weekly round trips or two a day in each direction. One flight daily will also serve Frankfurt. The total monthly seat capacity on T.W.A. jets, between London and New York this summer, in both directions will amount to 15,000. On April 24 services between Paris and New York will increase to two flights daily each way.

Vanguard Goes to West Indies

The new Vickers Vanguard turboprop air liner left on March 21 for a series of demonstration flights in the West Indies. It was to call at New York en route and to be shown there to a number of executives of various United States airlines. The Vanguard will be fully demonstrated at Trinidad and other centres served by British West Indian Airways. The outward transatlantic flight was via Keflavik and the Vanguard will return via Bermuda and Gander. It was captained by Mr. G. R. Bryce, chief test pilot of Vickers-Armstrongs (Aircraft), Limited. Some 20 crew and flight test observers from Vickers, Rolls-Royce and other firms are aboard, and the party includes a strong sales team. The aircraft will be away approximately a week. It is the fifth Vanguard off the production line and it is the one which, for a fortnight, had been flying daily around Europe on route-proving trials. During that time it flew a number of times to Paris (on which route it will start scheduled B.E.A. service on July 1) and also to Brussels, Rome, Malta, Frankfurt, Madrid, Dusseldorf, Lisbon, Naples and Zurich. Most of these cities were visited at least twice.

B.E.A. and Licensing Board

The new position of the air corporations, as proposed by the Civil Aviation (Licensing) Bill, has been commented upon by Lord Douglas of Kirtleside, chairman of British European Airways. The Bill sets out the terms of reference for the new Air Transport Licensing Board and one paragraph was particularly important because it refers to the question of "material diversion of traffic" from existing services. The wording proposed for this paragraph made material diversion of traffic from an established operator only one of the matters which the Board should consider. Some of the speeches during the debate in the House reflected anxiety that this would not give sufficient protection to the corporations' operations nor to the millions of pounds of public money invested in them. Mr. George Strauss, speaking for the Opposition, had said he would prefer to see this section redrafted as a direction to the Board against giving licences which would result in material diversion of traffic from an established operator. Such a change would certainly strengthen B.E.A.'s position. Lord Douglas, recalling that the Minister of Aviation had made it clear that B.E.A.'s present services, network and frequencies of operation would be approved for an indefinite period, further commented: "It is, of course, most important that there should be no limitation of frequency on any route on which we are licensed to operate. Any such limitation could have most serious economic consequences. Artificial restrictions on the full employment of the many new aircraft which we have on order could jeopardise the very large capital sums invested in them as well as the revenue we have planned they should earn for B.E.A."

Mr. Geoffrey Rippon, Parliamentary Secretary, Ministry of Aviation, had said that the corporation's monopoly of almost every domestic and international air route would not be automatically inviolate. "This implies that the Licensing Board may be able to authorise an independent company to operate services over routes in parallel with B.E.A. We are well used to competition because we have always had to face it on our international routes. I hope that the Licensing Board will remember this. It would be disastrous if division of effort were allowed to weaken the British position against foreign competition."

DEATH OF FORMER AVIATION ADVISER



The Late Sir FREDERICK BOWHILL, G.B.E.,
K.C.B., C.M.G., D.S.O. and Bar

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We greatly regret to record the death at the age of 79 of Air Chief Marshal Sir Frederick Bowhill, G.B.E., K.C.B., C.M.G., D.S.O. and Bar, who followed a distinguished career of some 50 years in the Merchant Navy, Royal Naval Air Service and Royal Air Force by serving from 1946 to 1957 as Chief Aeronautical Adviser to the Ministry of Civil Aviation and later to the Ministry of Transport and Civil Aviation. He was previously British representative on the council of the Provisional International Aviation Organisation after retirement in February, 1945, from the post of Air Officer Commanding-in-Chief, R.A.F. Transport Command, which he had held from its establishment in March, 1943. Whilst there he was largely responsible for the growth of this important branch of British war transport facilities and he had previously been Air Officer Commanding-in-Chief, Ferry Command, from its creation in June, 1941. Sir Frederick was A.O.C.-in-C., Coastal Command, for four years from August, 1937, and his earlier appointments included those of Director of Organisation and Staff Duties at the Air Ministry, Air Officer Commanding Fighting Area, Air Defence of Great Britain, and Air Member for Personnel on the Air Council. He was born at Morar, Gwalior, India, in 1880, and was educated at Blackheath School and in H.M.S. Worcester. He was commissioned in the Royal Navy in 1913, having previously served as a lieutenant for a number of years in the R.N.R. while an officer in the Merchant Service. He took up flying early, being appointed flying officer in the R.F.C. (Naval Wing) in 1913. During the 1914-18 war he served with the R.N.A.S. and R.A.F. at home and overseas, his commands including the air wing with the military forces in East Africa, and a wing in the Mediterranean. In 1919 he was chief staff officer to the successful expedition against the Mad Mullah in Somaliland. For his services he received the D.S.O. and Bar and C.M.G. He was seven times mentioned in dispatches. He became an air commodore in 1928, air vice-marshal in 1931, air marshal in 1936, and air chief marshal in November, 1939. He was awarded the C.B. in 1935, the K.C.B. in 1936 and the G.B.E. in 1941. Sir Frederick, whose knowledge of air transport operation and capacity for strenuous work served him well during the difficult period of Britain's redevelopment of its civil aviation, was a former Master of the Honourable Company of Master Mariners. He delivered the Brancker Memorial Lecture of the Institute of Transport in 1952.

IN PARLIAMENT

Those Headlamp Signals

PROSECUTIONS FOR SMOKY EXHAUSTS

FLASHING and dipping headlights, the signals given by lorry drivers to one another by night, were roundly condemned by the Minister of Transport at question time in the Commons on March 16. They were liable to be misunderstood, he said, and could not safely be included in the Highway Code. Mr. GRESHAM COOKE, who raised the question, suggested that, despite what the Minister had said, "these secret and cabalistic signs" would continue to be used, and we ought to come to terms with them. The other day a motorist thought he had the "come on" signal. He went on and had an accident and was then told by the other driver, "You fool, I gave you the 'keep back' signal." Mr. ERNEST MARPLES, triumphant, said that was all the more reason why they should not go in the Highway Code. The National Road Safety Committee of the Royal Society for the Prevention of Accidents felt that the practice was not only objectionable but indeed dangerous.

Diesel Oil Duty Yield

Mr. H. WILSON asked the Chancellor of the Exchequer the estimated loss to the Revenue which would be caused by the remission of the duty on diesel oil for all road transport, and on diesel oil for road passenger transport only, respectively. The reply from Mr. A. BARNER was that the last Budget estimate included £74½ million in respect of the duty on diesel oil used in all road transport, of which £26½ million related to diesel oil used in road passenger transport only.

Flag Discrimination

In a lengthy session on the knotty problem of flag discrimination, Mr. J. RANKIN asked the Minister of Transport if he had seen the remark, made at the annual meeting of the Chamber of Shipping by Mr. Hugh Hogarth, the new vice-president, that the shipping industry could no longer stand alone in this matter. In view of that declaration, was it not time that the Minister himself, as the responsible Minister, got among them to find out why they could not stand alone, and to see what he could do to hold them up? Mr. Marples said that he was "among them" only the previous day, asking them for their suggestions as to which way he could help.

Prosecutions for Smoking Exhausts

The Joint Under-Secretary of State for the Home Department, Mr. DAVID RENTON, told a questioner that there were 72 prosecutions in the Metropolitan police district in 1959 under the regulation which makes it an offence in certain circumstances to use a motor vehicle which emits smoke. No record was kept of the types of vehicles concerned. Mr. D. SMITH commented that these offences are by no means on the decrease. Would Mr. Renton use his influence to persuade the police to take a little more active interest in this matter? Mr. Renton said that in the Metropolitan area this was a matter for the Commissioner and he was anxious to enforce the law in this respect.

Mineral Wagon Position

Mr. G. SYLVESTER told the Minister of Transport of what he considered a critical situation developing in many of the coal fields where pits are working but are "always on the verge of stopping owing to a shortage of empty railway wagons." This, he alleged, was causing particular difficulties for the National Coal Board at a time when its stock-piles were gradually being reduced. Mr. ERNEST MARPLES told him that he had heard Sir Brian Robertson on this subject and he understood that difficulties arose from shortages in the supply of empty wagons to collieries and opencast sites in the early part of the year. These had now been substantially overcome. The difficulty had been in moving wagons while there was a shortage of staff. There was no overall shortage of wagons.

REVISED AIR FARES

(Continued from page 7)

below the present tourist fares. Within the Far East and Australasia area it was agreed to maintain the present general level of fares in both first- and tourist-class services, with minor adjustments.

Because of the high speed of the jets, the carriers generally agreed that it was unnecessary during the period of the present rate agreement to provide either berths or sleeper-type seats in jet aircraft. As a general principle, too, where the same fare is charged on both jet and propeller aircraft, propeller aircraft will be permitted to offer more spacious accommodation to first-class configuration and, when operating services at economy fares, will retain the present seating densities agreed for the tourist services which have been in effect in the past.

Class Nomenclature

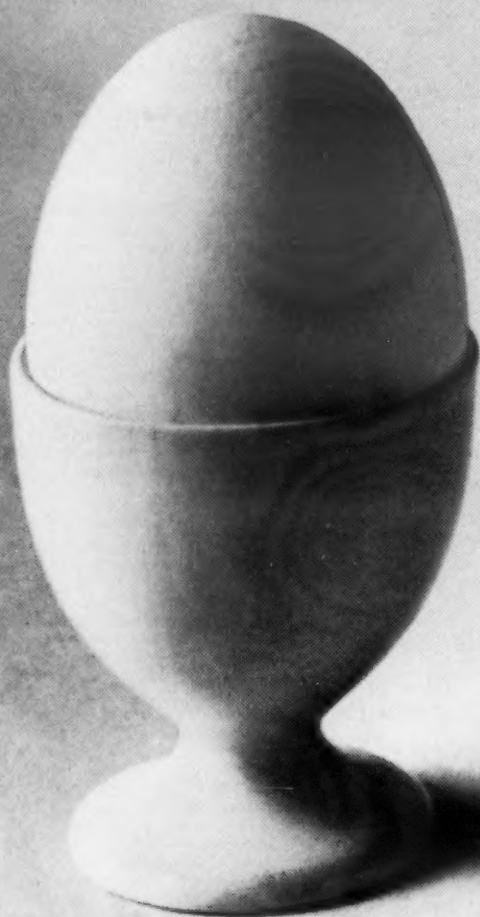
Apart from ensuring that seating densities in the newer type of aircraft, particularly the jets, were established at an economic level, the conference did not make any changes in the other conditions applicable to the low-fare service, even in cases where the fares themselves were materially reduced and economy services were introduced in place of tourist services. While it was realised that in essence tourist and economy services were very similar, for various reasons it appeared impossible at that moment to select a single name which could be applied on a worldwide basis. It was therefore agreed that the name tourist should continue to be used in certain parts of the world while in others it should be superseded as from October 1 by the name economy. In certain areas in the Far East carriers would have the option to call their low-fare service either tourist or economy.

The conference did not discuss in detail either fares or conditions within Europe, the Middle East, on the South Atlantic or within the Western Hemisphere as these had already been agreed in Honolulu. Mr. Dubourg concluded by pointing out that in spite of the extreme complexity of the problem and the necessarily divergent views of the carriers from different parts of the world, the success of the Paris conference indicated that the carriers were quite capable of overcoming these differences. It should, however, be added that I.A.T.A. has enough enemies about for it to need to think hard before repeating a deadlock such as Honolulu achieved.



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HAULAGE DEPOTS GO AHEAD

London Operator Follows the Trend

SINCE the re-entry of private enterprise into long-distance road haulage and its expansion elsewhere in the industry there has been a marked move towards erection of modern depot and office accommodation, including proper facilities for the routine servicing and maintenance of vehicles. This welcome drive in a field in which

but often large number of loads daily, are worked by this means. Semi-trailers are left at the factories for loading, but the tractors operate from Millwall, ferrying out empties when necessary. In this way the motive units are worked as a pool.

Premises

The main two-storey office block fronts West Ferry Road, with workshop, service bay and paintshop to the rear. Surfaced parking space is available for about 100 vehicles. Taking first the paintshop, this is thermostatically heated and air-conditioned to a selected temperature by blowing air through a 72 kW electric battery heater and discharging at high level. Air is filtered before passing through a centrifugal fan and heater and finally extracted by two outside mounted fans drawing through grilles situated in the floor.

The servicing, maintenance and stores sections are enclosed under one roof; the service bay is equipped with a large white tiled pit, lit by fluorescent lighting. The pit and bay are both centrally heated. A follow-up system is in use under which all vehicles receive attention every 2,000 miles or monthly, whichever occurs first. Each vehicle is allotted a space on blackboards lining the service bay area and each day those to be called in are indicated on this board. Jobs are ticked off as they are performed. Tecalemit high pressure greasing equipment and three grades of gear oil are available in the pit on retractable hose reels, the feeds being run under the floor from the various containers which are situated away from the normal working area. Lubricating oil is pressure fed from a bulk container to a wall mounted dispenser.

The main workshop, which is separated from the above by the stores, has three inspection pits. Full use has been made of the available space by fitting a series of fitters' benches down the rear wall so that vehicles requiring the use of an inspection for repairs can be pulled right up to the fitter's bench. Since many of the vehicles are tractor units up to eight vehicles may receive attention at one time. Leading off the workshop are a degreasing bay (with drainage, water and compressed air supply), and toilets. All areas and pits are centrally heated. A



Directors of Transport Development Group outside the new J. Spurling depot in Millwall; left to right, Messrs. D. Mills, W. Fraser (managing director), H. F. Martin, P. S. Henman (chairman), F. E. Henman (vice-chairman) and C. J. Palmer

before 1948 at least the industry was sadly lacking reflects a firm improvement in the financial strength and hence the confidence of the operators concerned in the future for road haulage. It accompanies,



In the workshop a Bedford 7-tonner cab is being repaired, while in the background is one of the insulated vans for frozen foods. The right-hand view is of the repair department office. The garage is organised on a 24-hour basis



too, the emergence of a few well-backed enterprises, most notably Transport Development Group, Limited, which itself occupies offices in the new Bucklersbury House in Queen Victoria Street, E.C.4. As groupings and mergers spread in the industry it may be expected that even more attention will be paid to depot standards.

One of the cornerstones of the £3 million Transport Development Group—it has wharfage, lighterage and cold storage interests as well as road haulage—is J. Spurling, Limited, which last week showed off its entirely new depot at West Ferry Road, Millwall, E.14. J. Spurling, which acts as a sort of 'guinea pig' so far as technical developments are concerned within the group, was formerly based at Bethnal Green but some time ago exchanged that depot for "Klondyke Garage" at Millwall occupied by Hanson Haulage, Limited, of Huddersfield (and not associated with T.D.G.), since the needs of both could thus be more suitably met. Moving to Millwall brought Spurling close to a sister company, John Buckley and Co. (Warrington), Limited, and also put it almost on the doorstep of the several wharves owned by the group in this area. The managing director of J. Spurling is Mr. C. J. Palmer and the transport manager Mr. J. French.

Operations

With a fleet of 90-100 vehicles, the company is engaged primarily in short-distance haulage, but it does on-demand long distance work also. Traffic over both short and long distances is sufficiently heavy to require a sub-contracting section and there are also personnel handling wharf traffic. A fairly recent development has been the addition of three heavily insulated medium-capacity vans for frozen foods. Much use is made of articulation—there are 46 tractors, mainly Bedfords, and 65 semi-trailers—and it is interesting to learn that two contracts, at Harlesden and Harlow, each providing a varying

vehicle wash bay will accommodate four large vehicles at one time, and is equipped with high-pressure water hoses. There are two diesel pumps and one petrol pump. The offices number in all

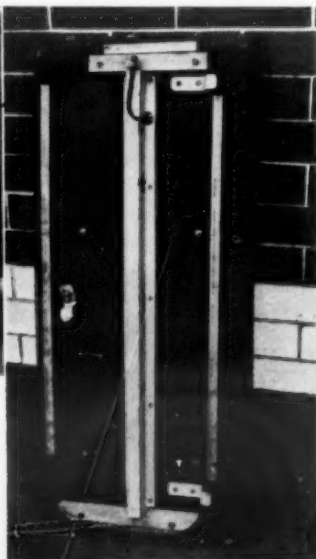


A new Thames van receives initial greasing in the excellent service bay. The garage area is centrally heated

11 principal rooms, with acoustic tiled ceilings and thermo-plastic floor tiles. Central heating is installed. The architect for this contract was Mr. F. Burn, A.R.I.B.A., 45 Blackfriars Road, S.E.1.



Loadmeter (bus loading recorder) as fitted to the nearside front of a London Transport Country area double-decker; the battery compartment is to the left of the recorder itself (seen with cover lid open). In this L.T.E. application the hinged sensing flaps are concealed within the body of the seat and the micro-switches are located in the metal channel on its underside



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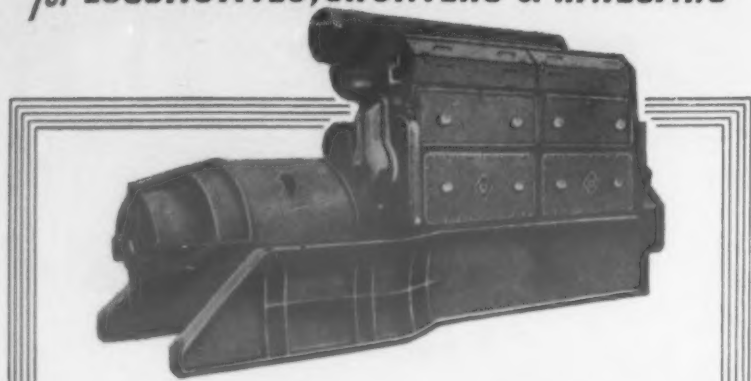
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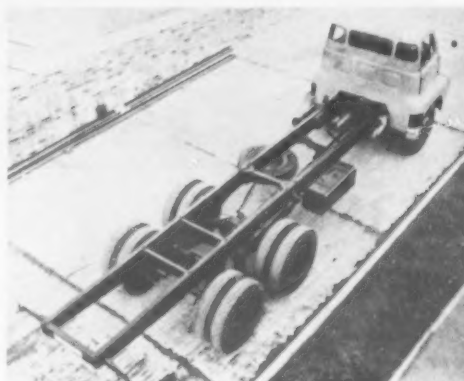
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SIX-WHEEL BEDFORDS

York and Primrose Conversions

FACTORY-APPROVED rigid three-axle Bedford capable of carrying payloads of more than 10 tons become available for the first time with the announcement that official approval has been given to two third-axle conversions. Previously, the only vehicles in the Bedford range

but, through Bedford dealers, by York Trailer Company and Primrose Third Axle Company. United Kingdom prices of the actual conversions (including the chassis extensions) vary from £555 to £578 for the York, and from £537 to £562 for the Primrose. Certain fittings not standard on all



Now approved by Vauxhall Motors, Limited, are the York (left) and Primrose third-axle conversions of Bedford 7-tonners, which are cleared for gross weights of 33,600 lb. with 300 cu. in. petrol or diesel engine and 34,500 lb. with 350 cu. in. diesel engine

capable of hauling such loads have been the articulated tractor and semi-trailers.

The two conversions approved are those developed by York Trailer Co., Limited, Corby, and Primrose Third Axle Co., Limited, Whalley. They can be applied to all short- and long-wheel-base forward-control and normal-control chassis in the Bedford 7-ton range. On all models they permit increases of over 3 tons in gross vehicle weight, as well as additional body length by chassis extension. Both conversions have been developed in close co-operation with Bedford engineers. Maximum use is made of standard Bedford parts, bringing not only saving of parts-stock space for fleet operators, but the benefits of the low prices of these parts.

Balanced Systems

In the York conversion, two separate stub axles give the extra axle the effect of independent suspension. Distributor beams, shackled to the rear springs, ensure proper sharing of the load between third and driven axles and, at the same time, look after the balancing of brake torque. In the Primrose conversion, the load is carried by two main coil springs and the axle is located by quarter-elliptic leaf springs, which also absorb brake torque. A hydraulic distributor unit automatically compensates load distribution between the two rear axles. Under load, the third axle floats against the hydraulic fluid pressure, with the coil springs taking shock reaction. A secondary servo and hydraulic system is incorporated in both conversions to provide balanced braking.

Neither conversion is carried out at the factory,

Bedford 7-ton chassis are necessary for the conversions, including the Bedford 6.4 and 8.72 to 1 two-speed rear axle (additional cost where not standard £95) and factory-fitted fitch plates (additional cost £7 to £10 15s.).

Maximum gross vehicle weights recommended for the converted vehicles are 33,600 lb. for all models when fitted with the 300 cu. in. petrol or diesel engine and 34,500 lb. for forward-control chassis fitted with the Leyland O350 diesel engine.

FORTHCOMING EVENTS

Mar. 28.—R.C.T.S. (Northampton), A. L. F. Fuller, "Ex-Main Line Locomotives in Industrial Hands." Liberal Club, Castilian Street, Northampton. 7.30 p.m.

Mar. 29.—Inst. T. (West Middx), Sqdn. Ldr. W. R. Gellatly, "Rotary Wing Aircraft." Control Tower Building, London Airport Central. 6.30 p.m.

I.Mech.E. (Education group), "The Need for Post-Graduate Refresher Courses for Engineers in Industry." 1 Birdcage Walk, S.W.1. 6 p.m.

I.R.S.E. R. H. Stapley, "Structure and Equipment Design." Chippenham. 6 p.m.

O.S. H. Jones, "History of Transport in the City of Lincoln." Victoria Coach Station, S.W.1. 6.45 p.m.

Mar. 30.—Inst. H.E. (East Anglia), Annual general meeting and films. Assembly House, Theatre Street, Norwich. 6.45 p.m.

I.Mech.E. (Lubrication), "By-pass versus Fuel-Flow Filtration." 1 Birdcage Walk, S.W.1. 6 p.m.

March 31.—Inst. H.E. (Midland), Annual general meeting and dinner. Chesford Grange Hotel, Kenilworth.

Apr. 1.—Rly.C. M. D. Greville, "The Remarkable History of the Lancaster and Preston Junction Railway." Royal Scottish Corporation, Fetter Lane, E.C.4. 7 p.m.

Apr. 2.—P.W.I. (York), Visit to B.T.C. Engineering Research Laboratories, Derby.



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MODERNISATION OF KEY SOUTHERN REGION DEPOT

£1½ Million Expenditure at Stewarts Lane, Battersea

THE genesis of Stewarts Lane as a motive power depot dates from 1860, the year when the enterprising London, Chatham and Dover Railway obtained Parliamentary powers for its "Metropolitan Extensions," a bold project which, commencing at Penge Junction, gave the company independent access to two London termini. At Herne Hill the line divided, one route going north to Blackfriars and Holborn Viaduct, and the other in a north-westerly direction through Battersea to Victoria. This second line, ultimately destined to become the great route for Continental traffic, was opened in August, 1862, and at the same time as it was building the company established a main works and motive power depot on a site about a mile south of Victoria at Stewarts Lane. For many years the works was known as Longhedge, a name derived from a farm that previously occupied the area.

The first engine shed was a half-moon affair with 40 roads off the turntable and stabling for about 70 engines. The works was equipped to undertake the repair and construction of all rolling stock, and was remarkable in that it was modelled on no less august a prototype than the London and North Western company's establishment at Wolverton. The construction of the buildings was substantial, so that even after one hundred years of continuous service the majority of them are still in use.

End of Longhedge as Works

After the working union of the London, Chatham and Dover Railway with the South Eastern Railway in 1899 the importance of the works gradually declined as the repair and construction rolling stock became centred at Ashford (Kent). The official closure of Longhedge Works occurred in 1911, and subsequently the redundant shops have been adapted for civil engineering and locomotive repair requirements, stores, and use by private concerns.

On the other hand the result of the union was that a great part of the South Eastern's Continental traffic was transferred to Victoria, and it was to meet this increase that early in the century the old locomotive depot was demolished and replaced by a 16-road straight shed with a capacity for about 100 engines. Facilities were also provided for the servicing and berthing of much of the carriage stock used on the Continental and Kent Coast services. The practice then, as now, was to work the empty stock to and from the terminus with the train engine at one end and a pilot at the other. This was no doubt because of the heavy banks that have to be negotiated, but it also had the virtue of limiting the amount of light engine working over a very restricted layout. In the summer period things were sometimes so tight that engines were often sent out of the depot in batches of up to six at a time coupled together.

Modern Difficulties

After the formation of the Southern Railway in 1923 the growth of continental and holiday traffic to the Kent coast resulted in conditions that can only be described as chaotic. Although this traffic had not reached its apogee in 1933, the electrification of the Brighton main line in that year added yet another burden when the Central section shed at Battersea was closed, and its remaining duties were transferred to Stewarts Lane. The allocation then rose to 175 engines—by far the largest of any depot on the Southern system. Despite the building of a new coaling plant and the installation of a larger turntable, little else was done to alleviate the situation, and on summer weekends difficulties sometimes became acute.

That this state of affairs persisted for so long was entirely due to the advent of the second world war in 1939. Prior to this the Southern Railway board had already in mind the electrification of the Kent Coast lines; electric traction had, in fact, already reached Gillingham and Maidstone before the outbreak of hostilities put an end to further progress. As reported in MODERN TRANSPORT of June 6, 1959, Phase I of the scheme now in progress covered the former main lines of the London, Chatham and Dover Railway and was opened to electric traction on June 15, 1959. Doubtless if the ghost of James Staats Forbes, the formidable general manager of the Chatham, could have attended such an event, it would have worn a smile of ironic satisfaction, that even after 60 years his company should again pip its old rival the South Eastern, whose main line to Dover comes under

Phase II and is due to be completed in June, 1962.

Phase II and its due to be completed in June, 1962. It is, of course, as an essential part of this scheme to electrify and dieselise the eastern section of the Southern Region that the modernisation of Stewarts Lane has been undertaken. Altogether the alterations will cost about £1½ million and with the exception of the new Longhedge Stores Depot and a small coaling plant to be built in the

schools then in existence at Ashford, Eastleigh and New Cross Gate would be quite inadequate to deal with the large number of motormen, diesel-electric and electric locomotive drivers required, over the next 10 years. Apart from covering the normal wastage of 140 men per annum in the existing electrified area, a further 680 men were required for the Kent Coast scheme, and of these

school may eventually be used for the tuition of mechanical staff for the maintenance of diesel locomotives.

Electric Locomotive Running Shed

The new electric locomotive shed is located on the site of former sidings alongside the carriage and wagon repair shop. When the electrification is completed it will serve as the base depot for all 24 electric locomotives allocated to the Eastern Section and 10 motor luggage vans. At present it is responsible for 18 locomotives, including the three earlier Southern Railway machines that handle the Central section Newhaven boat expresses and certain freight trains.

The building is 360 ft. long and 75 ft. wide, with a minimum clearance of 16 ft. above rail level. It contains two full-length roads and a short third road, all equipped with standard inspection pits. This shed also contains a 25-ton overhead travelling crane situated at the front end of the shed and covering approximately one third the length of the building. There is a workshop bay on the left-hand side, and an internal block containing stores and staff amenities. The right-hand road is equipped with a ground wheel lathe, which is used for reparallelising the tyres of electric locomotives, diesel-electric locomotives and multiple-unit stock.

Diesel Locomotive Shed

The diesel maintenance depot has been contrived by rebuilding the right-hand section of the existing steam shed by inserting a dividing wall between roads 12 and 13 and replacing roads 13 to 16 by two roads more widely spaced. For the time being roads 1 to 12 will continue to serve the needs of steam traction, but as the complement of diesel locomotives increases and the steam diminishes, further sections will be rebuilt as required.

As reconstructed the diesel section of the shed has a concrete floor with standard inspection pits between the rails. The roof structure at the inner end of the shed has been modified to provide clearance for two 10-cwt. hand runway hoists. An overhead bus bar system for supplying power for

for supplying power for tools and floor scrubbing machines is installed along the walls and centrally between the tracks, and portable welding plant points have been provided at mid-point of the shed. Water columns and smoke troughs have been removed; the latter are replaced by alternative ventilation. The old sand furnace which was located at this side of the shed has been demolished and replaced by filter and injector cleaning rooms.

The fuelling plant has been located outside the shed in the adjacent yard on the site of the old weigh house, and has a storage capacity of 46,000 gal. of fuel oil and 1,000 gal. of lubricating oil. It has three suction points for rail tank wagons and two for road tankers.

Other new facilities in this area include a new sand drying plant with overhead distribution mains to both diesel and steam servicing sidings. At a future date the existing mechanical coaling plant will be dismantled and the site used to extend the diesel servicing yard. New coaling facilities, ash pits and steam servicing facilities will then be provided.

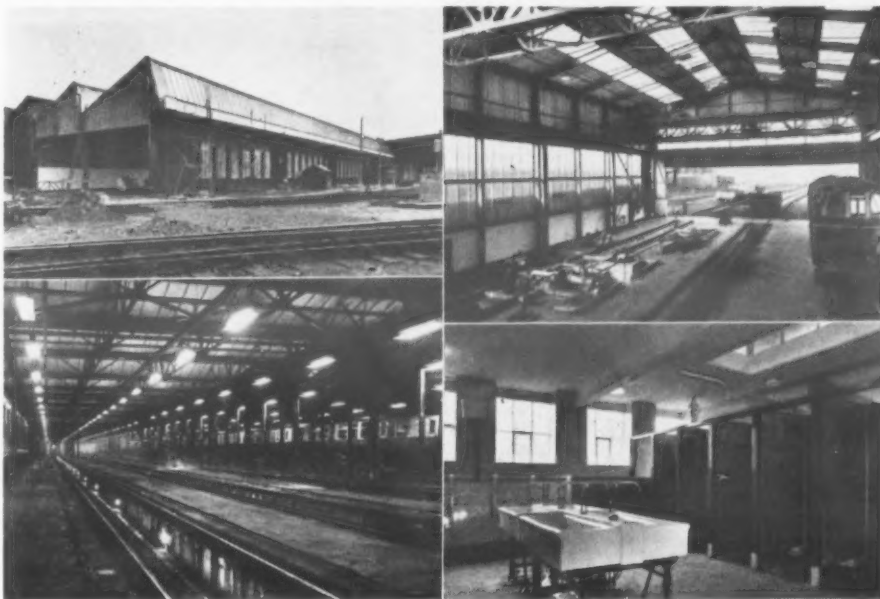
To accommodate the multiple-unit stock which will operate the bulk of the passenger services, the already extensive steam carriage shed has been considerably enlarged, and new sidings provided alongside on a site formerly occupied by part of the goods yard.

Berthing Multiple-Unit Stock

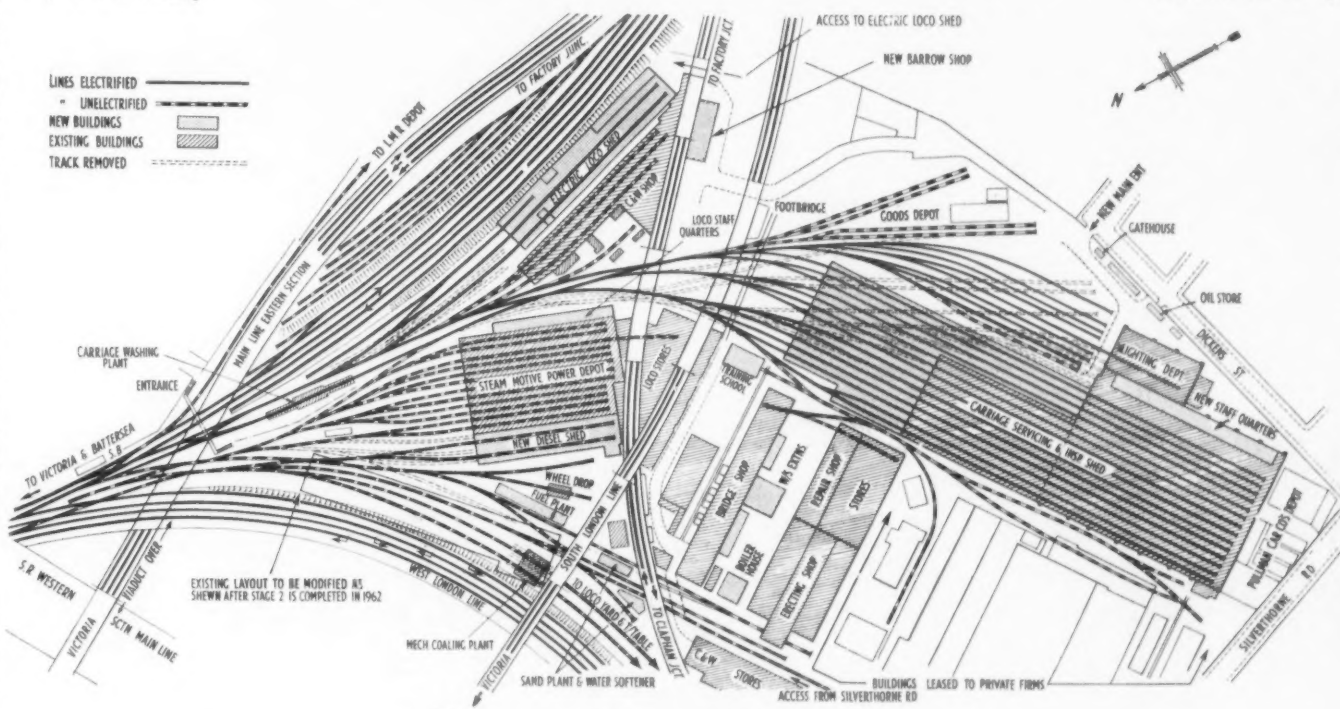
In all there are now 22 berthing roads, 14 of which are within the shed. Altogether the depot can accommodate 196 cars as follows: roads 1 and 2 on the north side will each take a 10-car train, roads 3 to 14 a 12-car train, and roads 15 to 22 a four-car train. Normally roads 1 to 3 will be used for servicing locomotive-hauled stock and roads 4 to 6 for servicing electric stock. Roads 7 to 14 will be used by day for inspection and servicing, and by night for inspection berthing and servicing.

Roads 7 to 14 have standard inspection pits and overhead conductors and trolleys, whilst roads 1 to 6 have conductor rails. There are transverse overhead hot and cold water services on roads 1 to 14.

Other improvements currently in hand or completed are a new central-heating plant, consisting of two John Thompson Economic Boilers with an output of 5 million B.T.U.s per hr., and the reconstruction of the staff amenities block in the main running shed.



Part of the motive power depot at Stewarts Lane converted for diesel-electric locomotives; electric locomotive running shed wheel lathe partly assembled. Below: left, interior of newly-converted carriage shed; right, staff lavatory in carriage servicing inspection shed



The layout of tracks and buildings at Stewarts Lane depot

turntable yard in place of the existing one, which is to be demolished, the main features of the work are clear from the plan reproduced herewith, and may be summarised as follows.

Improving Stewarts Lane

Provision has been made for a training school to instruct enginemen in diesel and electric traction; new electric locomotive running shed to be used as a base for all electric locomotives on the Eastern section; an extension to the existing carriage sheds, and their conversion to provide berthing and maintenance facilities for multiple-unit electric stock, together with new electrified berthing sidings on a site adjacent to the main carriage shed; and a new diesel-electric locomotive depot developed out of part of the existing steam shed, with fuelling facilities and a yard that will eventually occupy the site of the existing coaling plant. In addition to these main features, new staff amenities have been provided on an extensive scale. There is a new boiler house to meet all heating requirements throughout the depot. As already mentioned, the stores department has been rehabilitated, and extensions are planned to enlarge the bridging section which is housed in the boiler shop of the former locomotive works.

Following a review of training requirements made in 1957 it was clear that the three small

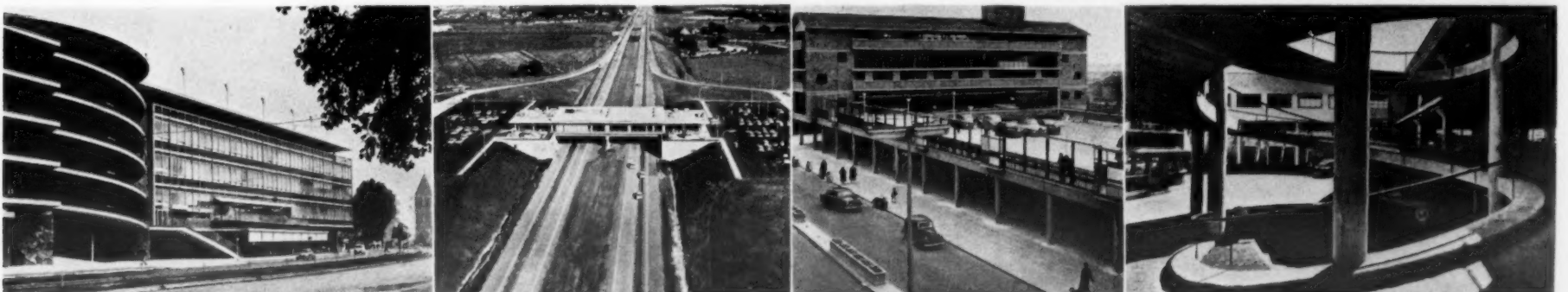
270 had to be trained for Phase I by June, 1959.

It was therefore decided to build a new training school, and Stewarts Lane was selected because the three forms of traction concerned were readily available at the depot, and secondly because of its ideal situation in relation to the Eastern, Central, and Western sections of the Region.

The Training School

A contract was placed with Holloway Brothers (London) Limited, the contractor for the electric locomotive and carriage sheds, whose men and plant were already on the site. The school was opened in 1958, and is a single-storey building with three classrooms for a total of 36 trainees at a time, a messroom for 24 men, an instructors' room, toilet facilities and a store for classroom equipment. The duration of a drivers' training is normally three weeks, of which the first two are classroom tuition followed by a week's practical training on a multiple-unit set or a diesel locomotive. The course for drivers of electric locomotives is somewhat longer with two weeks' practical work.

It is intended ultimately that the whole of the classroom training of drivers in new forms of motive power in the Region will be concentrated at Stewarts Lane. This will enable the other training centres to be closed down. In addition, the



Focus on offstreet parking: A Cologne store has a five-storey garage for 550-600 cars with ramp access, a basement dispatching yard and a reception yard on the ground floor; one of five restaurants opened last year to serve the Illinois Tri-State Tollway and Northwest Tollway; roof parking for 45 cars above shops in Corby New Town; and, extreme right, a Mexico City garage accommodating 45 cars on each of three floors and incorporating also a restaurant, showroom and filling station. Reference to the car parking exhibition organised by the British Road Federation at the Institution of Civil Engineers, March 18-26, is made on page 1

IMPORTANT CONTRACTS

Road Improvements in London

TENDERS for two major London road schemes, that of about £4 million by Balfour, Beatty and Co., Limited, for the duplicate Blackwall tunnel and that of about £3 million by Holland and Hannen and Cubitts (Lt. Britain), Limited, for the Hyde Park Corner to Marble Arch improvement, have been accepted by London County Council. Both schemes will be the subject of a Government grant of 75 per cent of the cost. The new tunnel will be situated about 250 yd. downstream and roughly parallel to the existing Blackwall Tunnel; work is due to start early next month and estimated time for completion is 3½ years, while additional ancillary works not covered by the contract will take about a further 18 months to complete. Work on the Hyde Park scheme, which will provide a four-lane underpass between Piccadilly and Knightsbridge and a new road parallel to Park Lane to form a twin carriageway, will start early in May and be completed in about 28 months.

C.P.R. Rolling Stock Order

Canadian Pacific Railway has ordered 300 70-ton flatcars from Dominion Steel and Car Corporation, Trenton, Nova Scotia. The new wagons will be 53 ft. 6 in. long and 100 of them will be equipped with end bulkheads.

Gardner Diesels for Buses

Norris, Henty and Gardners, Limited, will benefit from recent orders placed by Lancashire United Transport, Aldershot and District Traction Company and Wolverhampton Corporation totalling 74 passenger vehicle chassis, some powered by the well-known Gardner 6LW engine and others by the outstanding 150-b.h.p. 6LX engine introduced some 18 months ago. The chassis orders are shared by Dennis Bros. and Guy Motors.

Massey-Ferguson Records

In 1959 Massey-Ferguson supplied about one-third of Britain's record-breaking export total of £105 million worth of tractors and agricultural machinery. Business with the "outer seven" countries during 1959 accounted for 23 per cent of the company's total exports from the United Kingdom of agricultural machinery, an increase in the case of tractors alone of 11 per cent over the previous year. In addition, the dollar earnings last year of tractors and components manufactured by the company in Coventry, valued at 22 million dollars, represent an increase of 32 per cent over the previous year.

British I.H. American Sales

International Harvester of Great Britain, Limited, shipped 1,975 wheeled tractors to the U.S.A. during the last quarter of 1959, or over half of all tractors exported to the United States during that period, according to Board of Trade figures. This is a marked increase over the first three quarters of 1959, for which the company's share in this market stood at 19 per cent approximately. The Bradford factory has firm orders for 41 B275 tractors a day to be built continuously for the U.S.A. for the first six months of this year and over half the production of the Bradford works is being shipped to the United States and Canada. The Bradford

works was expanded recently to boost wheeled tractor capacity to 25,000 units a year and is now employing over 1,800, compared with 900 at the commencement of 1959.

New Stock for Netherlands Railways

Werkspoor N.V., Amsterdam, has received from the Netherlands Railways an order for 15 diesel-electric three-coach train units, five of which will start operating before the end of 1960. In addition, 500 goods vans will be built of a new type intended for the transport of light bulk goods. An order was also received for the construction of the undercarriages of 60 pressure silo wagons to be used for carrying pulverised products.

Olympic Airways Orders Another Comet

Olympic Airways, the Greek national airline, has placed an order for an additional Comet 4B jet air liner (Rolls-Royce Avon engines), bringing its total to three. The previous order for two Comet 4Bs was announced in July, 1959, and the first delivery will be in the spring of 1960. They will be similar to those about to enter service with B.E.A., specially suited for short- and medium-range operation. The number of Comet 4s now on order or delivered totals 47.

Replin for Transport Seats

Replin, a finely woven and hard-wearing furnishing fabric which has gained wide acceptance for shipping, aircraft and railway vehicles is to be used for the upholstery of the Trans-Europe Express. Among other transport applications of Replin are seating at Tehran airport, seats in Aer Lingus and Silver City aircraft, many British Railways coaches and in some of the most famous passenger ships, including the *Queen Elizabeth* and *Queen Mary*, the *Empress of Britain*, *Saxonia*, *Carinthia* and *Mauritania*.

More A.E.C. Engines for Finland

Arising out of a visit to London of a party of Finnish Government and transport representatives, A.E.C., Limited, has received from Vanajan Auto-tehdas Oy. a repeat order for 500 diesel engines of varied types, fitted with Simms fuel-injection and electrical equipment. This order brings the total value of Simms-equipped A.E.C. engines sold to Finland in recent years to well over a million pounds. Vanajan is the Finnish distributor for A.E.C. diesel engines and the maker of Finnish Vanaja heavy-duty commercial vehicles.

More English Electric Diesels for B.R.

The English Electric Company is to supply 20 more 2,000-h.p. Type 4 diesel-electric locomotives to British Railways, of which more than 60 are already in service. Since September, 1958, the first 10 English Electric locomotives of this type have averaged a weekly mileage of 2,500 each and up to the end of last year the total for all 10 on scheduled passenger services was well over a million and a half miles. The locomotive is geared to a maximum service speed of 90 m.p.h. and its powers of acceleration hauling trains like the *Master Cutler* and *The Queen of Scots Pullman* have proved invaluable when timings have been unavoidably interrupted by civil engineering works.

SHIPPING AND SHIPBUILDING

"Canberra" Launched

IT was a memorable day for Belfast on Wednesday last week when the 45,000-ton P. and O. liner *Canberra* slid down the ways at the Musgrave yard of Harland and Wolff, Limited, for she was the largest vessel to be launched there since the 47,000-ton *Britannic* in 1914 and, indeed, the largest liner built in Britain since the *Queen Elizabeth*. Belfast would like to think that she is a portent of further liner building on the same scale. *Canberra*, constructed at a cost of about £15 million, was named by Dame Pattie Menzies, wife of the Australian Prime Minister, who himself named the first Canberra bomber in 1951. She will, with a speed of 27½ knots, cut about a week off the voyage time to Australia and Sir William Currie, chairman of P. and O., said they were determined to endeavour to keep British shipping supreme.

Dracone Trial on the Thames

THE Dracone flexible barge had its first trial on the Thames last week. A special demonstration was staged for officials of the Port of London Authority. A 35-ton (10,000 gallons) cargo of kerosene was loaded into a 100 ft. Dracone at the Esso terminal at Purfleet and towed down the Thames for stability and manoeuvrability exercises.

Value of Car Cargoes

SHIPPING cars to worldwide markets has always been big business but is becoming more so, and on a year-round basis. This month the Nuffield Organisation alone will have spent £250,000 on the shipping freight costs of over 7,000 cars going to the North American continent. This sum represents just part of a month's shipping costs and covers only built-up cars to one market; it does not cover markets elsewhere in the world and takes no account of commercial vehicles, spare parts, knocked-down units, or tractors.

Holland—America Line Results

LOW freight rates and rising costs brought "disappointing results" in 1959, the Holland-America Line of Rotterdam said in its annual report. Net profits dropped to 4.1 million guilders from 5.7 million in 1958 and the dividend was reduced to six from eight per cent. Results of the company's freight carriage section again fell short of those for the previous year. Because of competition, freight rates were low. West-bound cargo offerings were still satisfactory, but the east-bound cargo volume declined sharply. Profits from the Java—New York Line were "not so bad as feared" in spite of Indonesian measures against Dutch companies and the low freight rates.

Optimistic of Welland Capacity

THERE is no reason why the Welland Canal could not handle the traffic offered for at least another five years without the necessity of twinning some of the single locks, said Mr. J. C. Lessard, vice-president of the St. Lawrence Seaway Authority, in Hamilton, Ontario. The trend was towards larger "Upper Lakers" and the con-

tinued reduction in the number of "Canalliers," and a definite pattern of import and export business for the ocean trade, he added. The Canadian ship *Eskimo* (6,500 tons) berthed at Montreal on March 21 to open the port for the 1960 season earlier than ever before for an ocean-going vessel. She was from Middlesbrough.

Clyde Bridge Repercussions

THE Clyde Navigation Trust, at its March meeting, decided that it would not object to a Glasgow Corporation proposal to build a bridge across the Clyde about half a mile west of the King George V Bridge, provided the Corporation paid it compensation and meet certain other conditions. The building of the bridge will probably lead to the development of the Clyde as a port being moved farther down-river, and may accelerate the long-discussed dock extension west of the King George V Dock, Shieldhall, which the trust has powers to undertake. The proposed bridge, linking Clydeferry Street, north of the river, with Shearer Street on the south side, would affect Kingston Dock, Clyde Place Quay, and a part of the Broomielaw. It will also present dredging difficulties. Although the half-mile of river will not be of further use to shipping when the bridge is built, the trust considers it essential to keep this stretch dredged in order to prevent silt from spilling into the berths farther west. The limited height of the bridge, which is to be built at quay level, will restrict the type of dredger which can get through. The bridge is to be part of Glasgow's inner ring road, circling the city for 4½ miles.

FINANCIAL RESULTS

NOTES on the trading results, dividends and financial provisions of companies associated with the transport industry are contained in this feature, together with details of share issues, acquisitions and company formations or reorganisations.

Pullman Car

Gross receipts of the Pullman Car Co., Limited, in the year 1959 were £591,613 (£844,680) and working expenses £755,788 (£738,102). Net profit was £283,156 (£283,256). The trading profit is a record, but provisions will adversely affect the 1960 figures, it is stated.

Transport Development Group

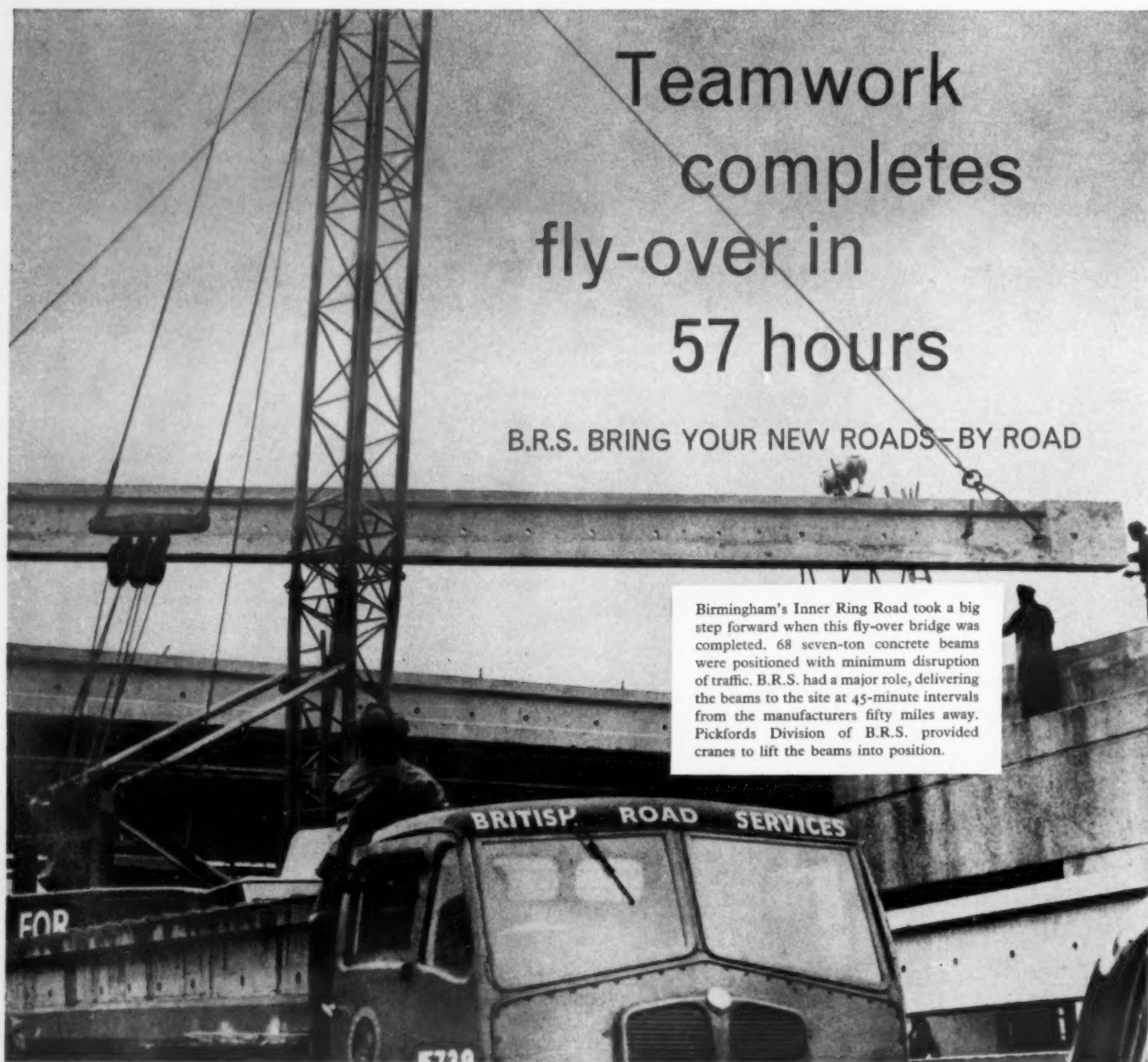
A final of 11 per cent, making 15 per cent, is to be paid by Transport Development Group, Limited, out of net profits, after tax and depreciation, of £383,221 (£231,015). Fifteen per cent dividend compares with the 1958 equivalent, adjusting for the one-for-three scrip issue a year ago, of 11½ per cent—there was also paid for 1958, prior to the scrip issue, a 1 per cent net capital profits distribution. The capital was further increased during 1959 by a rights issue and issues against acquisitions. Group profits, before tax, at £381,014, compare with £413,578.

North British Locomotive

A group net loss of £1,349,566 (loss £909,512) is reported by the North British Locomotive Co., Limited. Virtually the whole of this is attributable to the parent. There is no dividend. After a professional revaluation of the company's assets—land, buildings and plant—however, an excess of £1,457,918 over book value has been placed to capital reserve. The 21 ordinary shares were quoted after the report at 10s. 4½d.

Ford

The Ford Motor Co., Limited, is to pay a final dividend of 2s. 6d. per share or unit of ordinary capital in respect of the year 1959, making a total for the year of 3s. 8d. (17½ per cent) (excluding a special non-recurring interim dividend of 3 per cent paid in May, 1959). Trading income of the group was £32,191,743 (£24,691,514), taxation £14,158,000 (£13,070,000) and group net income £19,780,841 (£11,320,538). Total sales realised £228.2 million (£206.6 million), the number of vehicles sold being 472,857 (421,572).



**Teamwork
completes
fly-over in
57 hours**

B.R.S. BRING YOUR NEW ROADS—BY ROAD

Birmingham's Inner Ring Road took a big step forward when this fly-over bridge was completed. 68 seven-ton concrete beams were positioned with minimum disruption of traffic. B.R.S. had a major role, delivering the beams to the site at 45-minute intervals from the manufacturers fifty miles away. Pickfords Division of B.R.S. provided cranes to lift the beams into position.



B.R.S. Depot Manager, R. R. Cattle. Apart from complex timetabling, his work included liaison with police, briefing drivers, detailing spare crews, and dovetailing turn-rounds.



Thirteen lorries shuttled between Nottingham and Birmingham with their concrete cargoes. The 53-ft. loads were carried on vehicles with bogie-trailers.



Night work meant road below was closed only for Friday night and Sunday. Strict adherence to schedule won praise for B.R.S. from The Hoveringham Concrete Company Ltd.: 'We congratulate British Road Services... for the excellent arrangements... all loads arrived, without a hitch, on time.'

To get things moving—get BRITISH ROAD SERVICES

YOU'LL FIND THEM IN THE 'PHONE BOOK

The construction of the Inner Ring Road is being carried out under the direction of Sir Herbert J. Manzoni, C.B.E., City Engineer and Surveyor.

SOCIAL AND PERSONAL

Honour for Edinburgh Manager

TRANSPORT manager of Edinburgh Transport Department, Mr. W. M. Little has been made a member of a working party which is undertaking the task of setting down standard regulations for roads and road users in Europe. It will meet periodically in Geneva. This is a working party of the Inland Transport Committee of the Economic Commission for Europe, and Mr. Little has been appointed as representative of the International Union of Passenger Transport.

As announced last week, Mr. F. D. Fitz-Gerald, O.B.E., F.C.I.S., who has been national secretary of the Traders Road Transport Association almost from the time of its inception in 1945, retires at the end of this month. Mr. Fitz-Gerald had held various secretarial and accountancy appointments in commerce before he joined the secretariat of the British Road Federation 1933. In 1938 he was appointed secretary of the London and Home



Mr. F. D. Fitz-Gerald

Counties division of the Commercial Motor Users' Association and held that post until January, 1945, whereupon following the merger of the road transport associations, he was appointed deputy to the late Mr. F. G. Bristow in his capacity as director of the T.R.T.A. In June of that year, following the death of Mr. Bristow, he was made secretary of the Association. Mr. Fitz-Gerald received the O.B.E. in the Birthday Honours List in 1956. He will not entirely relinquish his transport associations as he will continue as a special representative of the T.R.T.A. to the International Road Transport Union (I.R.U.).

Mr. T. W. Jackson, A.M.Inst.T. (Key Warehousing and Transport Co., Limited, Hull) has been re-elected chairman of the National Conference of Road Transport Clearing Houses. The vice-chairmen are Messrs. R. W. Tree and S. Marsh.

Mr. Ernest Marples, the Minister of Transport, has accepted an invitation to be principal guest at the annual dinner of the Traders Road Transport Association. The dinner will be held on May 2 at Grosvenor House, Park Lane, W.1.

Mr. G. Mackie, formerly accounts and budgets assistant, has become assistant to accountant, Kings Cross, Eastern Region, B.R. He succeeds Mr. G. Phillips, who is retiring. Mr. F. S. Pyle, formerly works accountant, Stratford, becomes rolling stock accountant, in succession to Mr. J. C. Sicely, who is retiring.

We regret to record the death of Mr. H. G. Ramsell, general manager of the Yale and Towne Manufacturing Co., Limited, at Willenhall. He was appointed general works manager some 20 years ago and general manager in charge of both British divisions of the company (locks and hardware, and materials handling equipment) in 1954.

The National and Local Government Officers' Association moved this week into new London headquarters at NALGO House, Harewood Row, Marylebone, N.W.1. The first NALGO "office," in 1909, was a box for letters screwed to the wall of a solicitor's chambers in Ludgate Circus. For the past 12 years the Association has been housed in 10 Nash houses at York Gate, Regents Park.

A preparatory committee of transport experts from 15 countries, including the United Kingdom, met in Berne at the invitation of the Central Bureau for International Rail Transport to consider the revision of conditions for the international carriage of passengers and goods by rail. Mr. A. Martin, of the Swiss federal traffic bureau, was elected chairman of the committee. Member countries with representatives on the committee were, apart from Britain, Belgium, Denmark, Germany, Italy, Yugoslavia, the Netherlands, Norway, Austria, Poland, Sweden, Switzerland, Spain, Czechoslovakia and Hungary.

Mr. A. H. Nicholson, A.A.C.C.A., whose appointment as assistant regional establishment and staff officer has just been announced by the London Midland Region, began his railway career in 1927. In 1948 he joined the newly-formed regional establishment and staff office of the Eastern Region, but in 1949 was appointed assistant for wages staff in the equivalent office in the Western Region at Paddington. In 1951 he was appointed assistant (wages staff) in the London Midland Region staff office at Euston, the position he leaves for his new appointment.

Under a new procedure recently adopted by the Scottish Omnibus Group, the filling of staff appointments which occur in any of the companies will, in future, follow a recognised course. Vacancies for the posts of district traffic superintendent, depot engineer, chief inspector and above will now be advertised throughout the group and standard application forms are available for prospective candidates. These forms are completed and submitted to Mr. J. G. Methven, staff and welfare officer, and arrangements are made to enable the members of the selection committee to examine each application in detail, and to select a short list, for subsequent interview. From these interviews the successful candidate is selected. The selection committee consists of the chairman of the group, the general managers of the four principal companies, and the group staff and welfare officer.

B.R. Productivity Visit to Germany

A DELEGATION consisting of nine members of the British Railways Productivity Council is visiting West Germany next week to inspect railway modernisation progress there. The party will be led by Sir John Benstead, deputy chairman of the B.T.C., and the other members are: Messrs. J. Ratter (B.T.C. member), A. Dunbar (manpower adviser), C. S. McLeod (director of industrial relations), L. J. Hamblin (industrial relations and welfare officer), E. J. Larkin (director of works study), C. P. Hopkins (general manager, Southern Region), W. J. Evans (acting general secretary, A.S.L.E. and F.) and S. Greene (general secretary, N.U.R.).

It was announced last week that Mr. H. R. Featherstone is to succeed Mr. F. D. Fitz-Gerald as national secretary of the Traders Road Transport Association. Mr. Featherstone has spent nearly two years at T.R.T.A. headquarters, interspersed with numerous visits and engagements to the divisions. After wartime service in the R.N.V.R., he was for ten years assistant secretary



Mr. H. R. Featherstone

to the Natural Rubber Development Board. Upon him recently devolved much of the preparation of the report of the T.R.T.A. survey of the work of C-licensed vehicles.

Mr. W. P. Stote has been appointed managing director of G. Beaton and Son, Limited, motor industry supplier. This is a member of the George Cohen 600 Group.

We record with regret the death of Mr. John Boddy, chief engineer and technical manager of Trico-Folberth, Limited. It was in 1941 that Mr. Boddy joined Trico as a works manager and he was appointed chief engineer and technical manager in 1946.

Mr. W. N. Collins, assistant managing director of F. Perkins, Limited, has been elected chairman of the marine section of the Society of Motor Manufacturers and Traders in succession to Lieut.-Cmdr. J. W. Thornycroft, C.B.E. Mr. Collins has been a member of the S.M.M.T. council and management committee for a number of years.

The Traders Road Transport Association has just made its first appointment of traffic officer. Mr. W. S. Clark, who has retired after serving as an inspector in the Metropolitan Police, began his duties with the London and Home Counties division this week. The post has been created because of the increasing number of local and other authorities who are inviting the T.R.T.A., as representative of the C-licence operator, to give an opinion of the likely effects of various traffic proposals on commercial vehicle operation. The appointment is on an experimental basis.



Mr. W. H. (Billy) Gilbert has retired as chief engineer of Guy Motors, Limited; here, he receives a cheque from Mr. Robin Guy, technical director of the company. Mr. Gilbert also accepted a television set from his friends in the industry

Two papers of transport interest, open to non-members, are to be given shortly before the Royal Society of Arts. On March 30, Mr. G. J. Ponsonby speaks on "The Structure and Organisation of the Transport System" and on April 6 Mr. C. Cockerell will talk of "The Hovercraft and its Place in the Transport System." Applications for tickets should go to the secretary of the R.S.A. at John Adam Street, Adelphi, W.C.2. Both meetings are at 2.30 p.m.

The London-Birmingham motorway earns a much coveted distinction. The Worshipful Company of Carmen has awarded the VIVA shield for outstanding transport improvement in 1959 to John Laing and Son, Limited, for its part in this project, which was carried out on time in adverse weather conditions. The completion of the work in 19 months included the construction of 55 miles of new roadway and 134 bridges. The shield award includes a gold medal and illuminated citation which takes note of the dedicated co-operation of all concerned. The presentation will be made at Trinity House, in July next. The announcement of the award was made by the Master, Colonel J. F. Pye, J.P., at the Company's livery dinner at the Mansion House on Wednesday last week. Among the guests were H.R.H. the Duke of Gloucester, the Lord Mayor, Alderman Sir Edmund Stockdale, and the Lady Mayoress, H.E. the Cuban Ambassador, and Mr. W. K. Laing.

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- All parts of Northern Ireland, Scotland and England served
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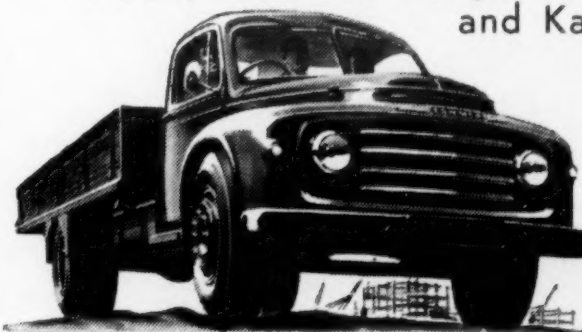
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(London) Ltd and (Belfast) Ltd

LONDON 79 Dunton Road SE 1 Bermondsey 4881/4 (Head Office) and Elland Road SE 15 New Cross 4885/7 (Traffic Depot) PRESTON The Docks Preston 86742/4 LARNE (Northern Ireland) Bay Road Larne 2331/2 BELFAST 35/39 Middlepath Street Belfast 59261/5 MANCHESTER 2 270/1 Royal Exchange Buildings Blackfriars 9287/9 GLASGOW 10 Bothwell Street C2 City 6997/8 (Offices) and 17/21 Tylefield Street SE Bridgeton 2277/8 (Traffic Depot) ARDROSSAN (Ayrshire) Harbour Street Saltcoats 1911/2 BRISTOL 61 Park Street Bristol 25435/6

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NEWTONS
supply the full range of Commer and Karrier vehicles



from the 7 cwt. light van to the 12 ton tractor. Vehicles noted for their reliability and service under all conditions. And only Newtons offer this outstanding range on such easy terms.

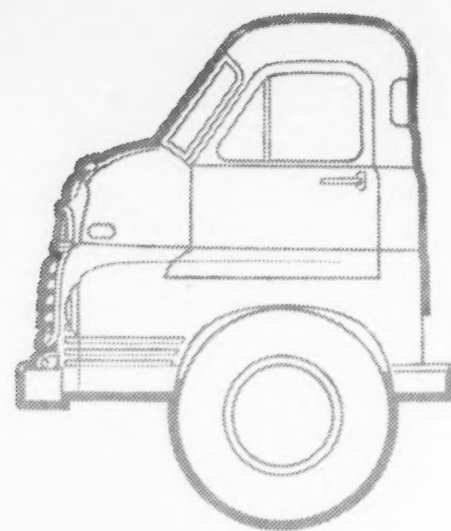
10%
Deposit

6%
Interest
per annum

48
Months
to pay

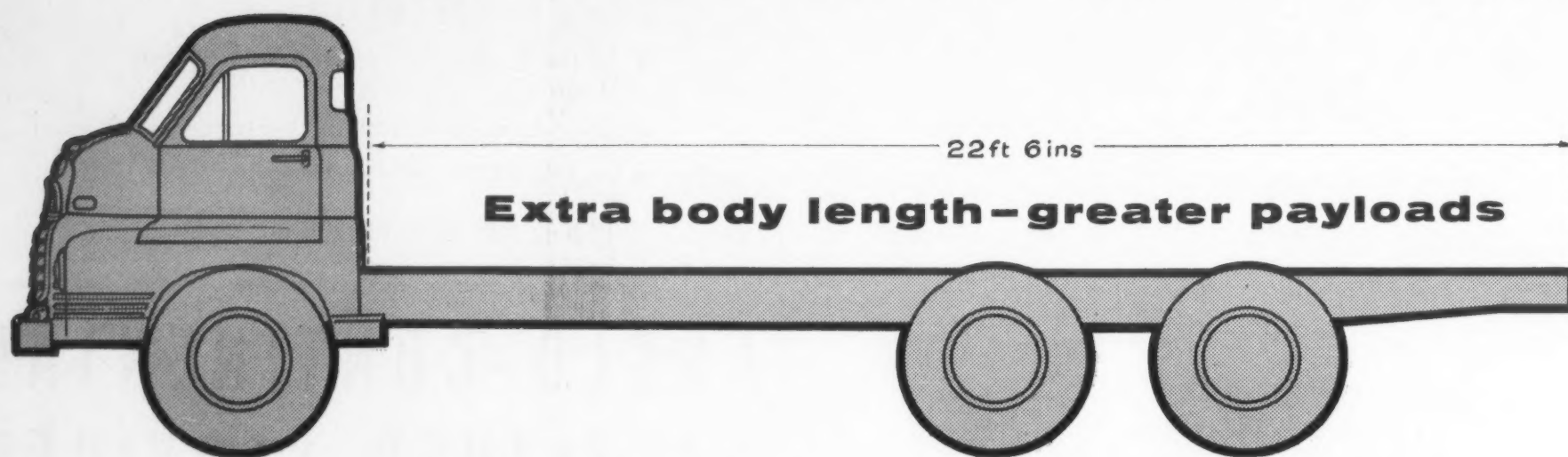
NEWTONS OF WEMBLEY LTD.
NEWTONS CORNER, WEMBLEY, MIDDLESEX
ARNOLD 5252

Bedford announce



6-wheeler conversions

by Primrose and York



Two new six-wheeler conversions — by Primrose and York — are now available on a wide range of Bedford 7-ton chassis. Both conversions *provide extra body length for greater payloads* and for gross vehicle weights up to *15 tons 8 cwt.*

These are the Bedford models for six-wheeler conversions

- 7-ton Extra Long Forward Control, 168" w.b. (for 22 ft. 6 ins. body)
- 7-ton Long Forward Control, 156" w.b. (for 21 ft. body)
- 7-ton Short Forward Control, 116" w.b. (mainly for tipper work)
- 7-ton Short Normal Control, 155" w.b. (mainly for tipper work)
- 7-ton Long Normal Control, 179" w.b. (for 19 ft. 3 ins. body)

Maximum gross vehicle weight is increased to 33,600 lb. (15 tons) when fitted with Bedford's 300 cu. in. petrol or diesel engine, and 34,500 lb. (15 tons 8 cwt.) when fitted with the 350 cu. in. diesel.

The Bedford 2-speed rear axle is standard on all these 6 x 2 (middle-axle drive) conversions with special ratios 6.4/8.72 to 1.

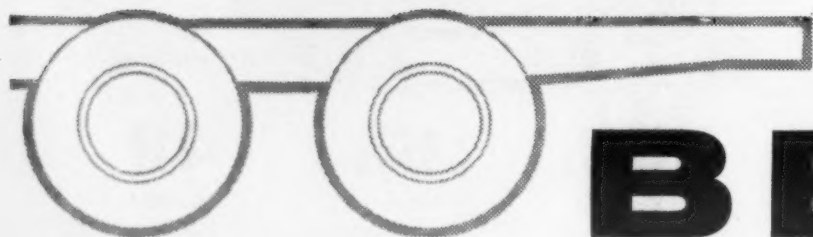
Carefully engineered frame extensions, and fully integrated and balanced six wheel braking are features of both conversions. Brakes,

hubs, drums, stub axles and wheels are standard Bedford parts. Replacements are readily available at low cost from Bedford dealers.

Low Prices. Prices of fully equipped Bedford 6-wheeler conversions in chassis-cab form range from £1,642 (Petrol) and £1,767 (diesel).

Thoroughly tested by Bedford engineers, the new Primrose and York conversions are now available through any Bedford dealer, who will be glad to give you full details.

Vauxhall Motors Ltd., Luton, Beds.



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